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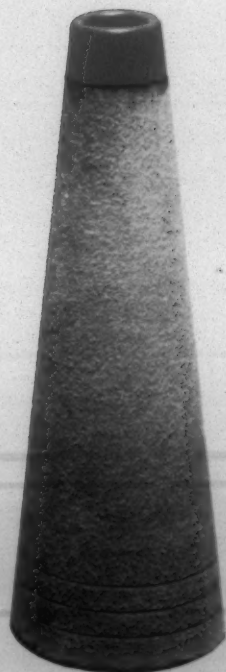
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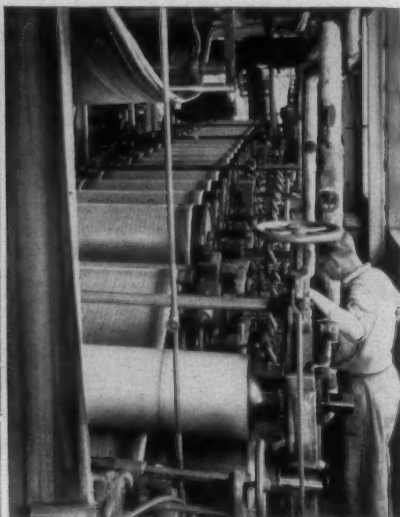
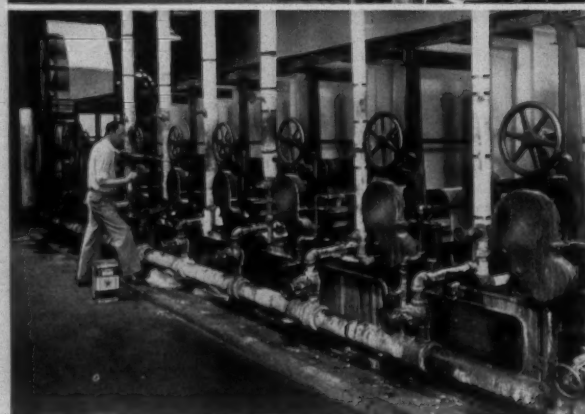
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The Composite Textile Industry*

By Dr. Claudius T. Murchison

President of The Cotton-Textile Institute, Inc.

At this, our Fourteenth Annual Meeting, the members of the cotton textile industry for the most part feel that we are on the threshold of a decade which will be strikingly different from the one we have just traversed. The past decade may be characterized as one of defensive adjustment. Certainly the adjustments were necessitated by the over-expansion of the industry's physical equipment which had become clearly apparent by the end of the 1920s. Other adjustments were necessary because of the stagnation of consumer demand for textiles which was a feature of the long depression which began eight years ago.

Many of these adjustments, and certainly the most important of them, were initiated by the industry itself and freely accepted as the intelligent and constructive way of meeting the requirements of a changing economic system. But in addition to adjustments of this character, there have been many others occasioned by a vast body of regulatory legislation. Much of this legislation, at least in its preliminary stages, was ill-conceived, hastily formulated and perhaps influenced in large degree either by prejudice or



by punitive motives, the desire to expand political control or to appeal to organized pressure groups.

For the first eight years of the decade, it seemed as if industry were wholly without effective friends and without the benefit of public understanding of the essentials of its organization, methods and problems. It was evident that industry had taken too long for granted its value to society and had assumed that public appreciation of this value would express itself automatically in time of crisis. During the bitter conflicts that ensued this assumption was not realized and our industry, with all others, suffered

the fate of disillusion and the high price which has always to be paid for disillusion. But, however belatedly, the lesson has been learned. As the lesson has been learned it is also fortunate that the opportunity for new tactics and new purposes is arising which is as broad as the dawn of a new day.

Until recently we have thought of the industry's firing line as being at the seat of government. We have thought of our adversaries and also our friends as consisting mainly of the political representatives of the people in Washington. Our lack of preparedness, the emergency character of the invasion and the high concentration of political power for a time left us no other choice. When the levees are breaking one has to work where the water is actually overflowing. Into this kind of struggle we have too long had to throw our energies, our minds, our resources and divert to that purpose even the elements which go to make up our emotional lives, our loyalties, our principles and our hopes. But this type of struggle is not the way of democracy. It is not the way to an equitable administration of a state. It is not the way to an attainment either of justice or of prosperity.

Every industry, every occupational group and every economic activity should find this justification in the value which it creates for society. But, as we have seen, such values have no bearing upon the policies of the State unless they are publicly recognized. The palladium of our liberties, industrial and individual, does not come from the Congress, the courts or the President. It is in the state of mind of the American people. This philosophy and the procedure which it suggests should appeal more strongly to the cotton textile industry than could any other doctrine. No industry in America is in so fine a position to contribute to the values of our economic life with ever-increasing momentum and, at the same time, to contribute to the thinking which is so vital to democracy.

The members of the Cotton-Textile Institute are the spinners and weavers of cotton. Likewise, the regional cotton manufacturers' associations and the state associations of cotton manufacturers consist in the main of spinners and weavers. Altogether the members of these associations are thought to constitute the cotton textile industry. I think it very important that this conception be

*Address at the Annual Meeting of the Cotton-Textile Institute, October 23rd, in New York City.

abandoned in facing the great task of formulating and executing those policies which will ultimately determine the industry's salvation.

If the industry is to become a great force in raising the level of national life, its scope must be regarded as including the cotton farmers and all the allied groups engaged in the ginning, marketing, compressing and transportation of raw cotton and also the processors of cotton seed. We must also regard as merged with us the selling agents, the converters, finishers, the cutting trades and all secondary processors of cotton yarn and fabrics. Likewise, those industries whose major function is to provide textile equipment and supplies should be included. Beyond these is the great army of cotton goods distributors, the wholesale and retail merchants of the United States whose number runs into the hundreds of thousands and whose volume of sales of cotton goods will approximate annually four billion dollars.

Need Working Relationship

Throughout all of these specialized groups, a working relationship should be established so close and so tightly knit as to produce perfect unity for the compelling purpose which we have in mind. There is in this purpose no vagueness, no deception, no propaganda and no flamboyant emotionalism. Its most important feature is to achieve a strengthened economic basis for cotton in the United States by providing products which are more attractive, more useful for intended purposes, more varied in refinement of design, finish and texture, produced with greater manufacturing efficiency, marketed with greater merchandising skill and supplied to the consumer in ever-increasing volume.

The Institute's Cotton Promotion Program is going at the problem both intelligently and ambitiously. It realizes that the complete attainment of these aims can be assured only through the co-operation of every group which processes or handles cotton and its products in any way whatever. The manufacturing and finishing divisions of the industry are well equipped with technicians, and the technical accomplishments of the past few years are truly startling. No technical advance, however, can bring its true reward to the industry or to the public unless it can be fully and promptly taken advantage of by the creators of fabrics, apparel and home furnishings, by the merchandising interests and by the industrial consumers.

Centralized Responsibility

This necessary co-ordination of all groups can be achieved through centralized and expert responsibility. The Institute's program initiates exactly this development. Despite comparatively limited funds, the program will achieve measurable results this year, I am certain. And I am equally certain that these results will encourage the industry to give more nearly adequate financial support to the effort so that the Institute can develop within its own framework a really great Cotton Bureau of America—an organization which will constitute a full mobilization of every resource of the industry and will provide the necessary liaison, interchange of information, stimulus of new suggestions and promotion spring board which cotton today needs so desperately.

It may be said that the first fruits of such a program would alone justify it. It would mean a more active and

more profitable industry, a greater volume of employment, enlarged payrolls and greater values to consumers. But even greater, is the ultimate reward—the preservation of the empire of cotton which is the greatest and should be the strongest part of our national economic system.

We can never again expect foreign nations to take one-half of our cotton crop. Looking as far ahead as possible in this befogged world, we cannot see the likelihood of an export business in cotton exceeding one and one-half million bales for the current crop year. The wars of the world are continuing to expand in scope and destructiveness. It is futile to hope that the years subsequent to 1941 will solve our cotton problem through the medium of export trade. Our domestic cotton production, already drastically curtailed in the past decade, is still pitched on a scale of approximately twelve million bales per year. We are reaching new heights in our domestic consumption and confidently expect to go beyond the eight million bale mark during this current year. But the disparity between this figure and our total production becomes truly alarming if it is to be long continued.

Must Utilize Surplus At Home

As I see it, the only hope of closing that gap lies in the determination and ability of the American cotton industry to utilize its surplus material at home. Only in this way can we obviate distress for the farming population and escape the inevitable and drastic remedial legislation which will certainly be imposed upon us in the form of a processing tax or otherwise if no other solution can be found. In attaining this solution, if it can be attained, we are doing more than an economic accomplishment. We will be demonstrating what can be done in a democracy through the enlightened and collective will of its industries to meet the necessities of the times without arbitrary force of government. If we can do this we will, at the same time, reach the hearts and understanding of the people and there will no longer be any battle lines.

We are only in the beginning of this new program but the gains already made are more than encouraging. Probably the most important part of the essential organization work to produce unified effort has already been done. I have reference here to the magnificent support which has been accorded us by the organized retailer groups of the United States and also to the establishment of the National Cotton Council which includes the raw cotton interests of the country and whose activities are being blended with those of the manufacturing and retailer groups.

The greater financial support which is so necessary to uphold the larger program now appears assured. We have not reached the goal which we have set but are within striking distance. Today 50 per cent of the total active spindles within the industry have subscribed to the 2c-a-bale program. Subscriptions to this cause should not be regarded as donations; neither are they to be regarded as a speculation. They are, on the contrary, an investment—an investment which meets every test of soundness and will return to the investor principal and interest one hundred fold.

At the moment, and probably for some months to come, the industry will be greatly absorbed in doing its

(Continued on Page 47)

Good Mill Housekeeping Discussed at Northern N. C.-Va. Meeting

The first part of the report of this meeting of the Northern North Carolina-Virginia Division of the Southern Textile Association, held at Spray, N. C., on October 5th, was published in the October 15th issue, and consisted chiefly of an excellent talk by Luther Hodges. Subjects discussed included handling of picker laps, stripping of cards, etc. The report continues here.

Placing Roving Cans

The next part of this question is in regard to roving cans. What system do you use in placing roving cans in order to conserve space, keep the alleys clear and keep the mill clean and orderly? Has anyone any system for that?

A Member: As a weaver, I have trouble sometimes getting through my department on account of the roving cans.

Mr. D.: As a carder, I can say that one of my biggest



J. O. Thomas, Secretary, and T. C. Pegram, Chairman, of the Northern N. C.-Va. Division of the S. T. A.

problems is keeping my cans out of the other end of the mill, so I can use them. (Laughter.)

Chairman: I have never seen a card room big enough yet, gentlemen, and I do not believe there has ever been one big enough. In fact, I do not believe a mill has ever had enough cards in it.

Thinking of Mr. Hodges' talk again, internal mill transportation to my mind has been sadly neglected. Most mills run a big poundage, and that poundage is handled time and time again, and we use very crude methods for doing it. When you go to move cans of sliver, if there is not some system worked out for doing it the result is having to cut the cans. (That is cotton mill language; you know what I mean. In other words, you have to take some off the top.) If you don't, then when you start to

push along the truck some falls off the top of the cans and falls in front of the truck; and you have several pounds of stock, which you have paid labor to produce, wasted. On the other hand, if you cut cans it runs into money. We have made a study of that. Then, too, it makes a shorter package. If you are going to move cans of sliver you should devise some means by which there is no danger of the can's turning over or the sliver on top falling off. I leave that thought with you.

Mr. E.: Have you a smooth bottom in the cans?

Chairman: Yes, sir.

Mr. E.: I just thought if you had a false bottom in it it might be better.

Chairman: It is not a matter of the can's turning over but of the sliver's falling out. The answer to it is having a truck with a rail high enough to hold the cans and having it finished with shellac or something like that, so it will not pick the sliver.

Let us go on to the next part of the question. That has to do with filling boxes. How do you place your filling boxes in order to conserve space and keep the alleys clear and the mill orderly?

Mr. D.: The best device I have found is to take a piece of 2" by 4" lumber and nail it on the floor. Everybody knows what it is there for, and they will push the boxes up against it. It gets them in a straight line, makes them look a little better, and saves space.

Chairman: How many kinds of filling do you have, Mr. D.?

Mr. D.: Well, not many; probably 25 in the card department. Most of ours are in the spooling; we have 75 to 80 boxes up there all the time.

Large Number of Filling Yarns

Mr. B.: I have 85 kinds of filling. I should like to know how to take care of that.

Chairman: Mr. F, if you can tell me how many kinds of filling you have I will give you my place.

Mr. F.: I have a new kind every day.

Chairman: Would you mind telling us how you handle your filling?

Mr. F.: We doff a side in a box. We have the individual boxes that go to the weave room, and we doff a side to a box. We have a space that is, I would say, 100 by 100, each way, and I would say we have 125 kinds of filling. It is a problem to keep it straight and keep it lined up. We stack it five boxes high. Sometimes that

will run up so we have three or four frames and have to have a hundred boxes of one kind; and maybe we have three boxes, or five, or ten, of another. It is hard to keep that lined up and looking like anything on the spare floor. We try to do the best we can. We have three-post alleys, and we line up there. We have a piece nailed across from post to post, and then we have cards to put up there that tell the number and the color, and we try to stack it in that way. But it is hard to keep the doffer from stacking it out of line.

Question: What size of box do you use?

Mr. F.: About 12 or 14 inches long.

Chairman: How many bobbins to the box?

Mr. F.: 138.

Filling Stays in Doff Until Used

Chairman: How many spinners in here keep their filling in the same box it is doffed in, to go to the loom? Raise your hands. I see there are several. Everybody else, then, I take it, transfers the filling from the box it is doffed into a box on the loom. I ask you now this question: If you condition filling do you put it back in the same box or put it in a big box?

Mr. G.: I have been trying to learn something about this. We have around 200 colors and numbers, and ours is such a tremendous problem that we do not know how to figure it out ourselves. We take it out of the doff basket and put it in another canvas basket which holds from 60 to 90 pounds. We have so many different fillings that we have what we call the filling room. That is as large as this auditorium. We have that laid off and have a section for each type of filling and blend. We have numbers for the different kinds of filling and have the different parts of the room numbered. When we need a certain kind of filling to give the doff boy the number and send him down to get it and bring it up to the loom.

Chairman: Is it conditioned?

Mr. G.: No. When we have any left over we take it back to the storage room.

Mr. H.: Do you use a plain loom or a box loom?

Mr. G.: Box looms.

Chairman: The other gentleman was talking about looms that are plain looms, but about a bigger variety of numbers and colors.

Mr. H.: He has one box to each loom?

Chairman: One box to each loom, but the problem there is how to put the boxes up. If you have overhead belting that is quite a problem; if you have individually driven looms it is less troublesome. You sometimes have to build racks to take care of it.

The next problem is how to get the right filling on the right loom. One method is to have under each loom a card with the filling number on it. When that loom needs replenishing the boy takes off one of the cards (the card for each particular loom has the loom number on it) and hangs it on a holder on his truck. He does that until he gets a sufficient number of cards to give him a truck load of filling. Then he takes that truck to the spinning room, where he goes to the zone or space where the filling is and

selects the filling called for on the cards. If it is to be conditioned he takes it by the conditioning machine, conditions it, and puts it back in the same box. Then he goes back to the weave room and retraces the same route he started out with, and as he takes off the boxes and puts them on the particular looms to which they go he takes the card off, in each case, and hangs that back.

Every time he takes up a box of filling he has an identity on it, and that prevents mixed filling. Those of you who have complicated rooms know how important that is.

A Member: That seems like a good system for keeping up with it.

Chairman: It is easier on the battery hand, too. Some mills that have quite a lot of numbers use the truck, and that is fine. But sometimes the battery hand has to carry in her apron or in her pockets the filling from one place to another, which is a problem, because it is quite heavy on her.

Store Filling in Loom Box

Mr. G.: Are there any men here representing mills that store filling in loom boxes? That is, where they have an enormous number of fillings and colors.

Chairman: We do.

Mr. G.: Store it in loom boxes?

Chairman: Yes. It is doffed in the same box. Those are white pine boxes, fairly light and cheap. They have to be, because so many are used. The filling stays in the box it is doffed in until it is used on the loom.

Mr. G.: Do you have any trouble with mixed lots?

Chairman: It is zoned in the spinning room, on the spare floor. That is marked off, and there is a mark or sign on the box that indicates it holds a certain kind of filling. From then on when it is moved there is a card with it, indicating it is for a certain loom that uses that certain filling.

Mr. G.: Do you change patterns on the loom very often?

Chairman: Oh, yes, and that card is taken down and the number changed on it when the pattern is changed.

Question: Do you have four boxes for the loom?

Chairman: You mean four filling boxes? Oh, we may have more than that. But they are not box looms; they are plain looms, so there is only one type of filling per loom.

Mr. G.: We have box looms and considered that method for a while but have not been able to work it out satisfactorily without having a lot of mix-up. We have four boxes at the loom, each one for a separate color. The filling is put in there from a big basket that holds 90 or 100 pounds.

Chairman: The filling hand goes along and fills up those boxes?

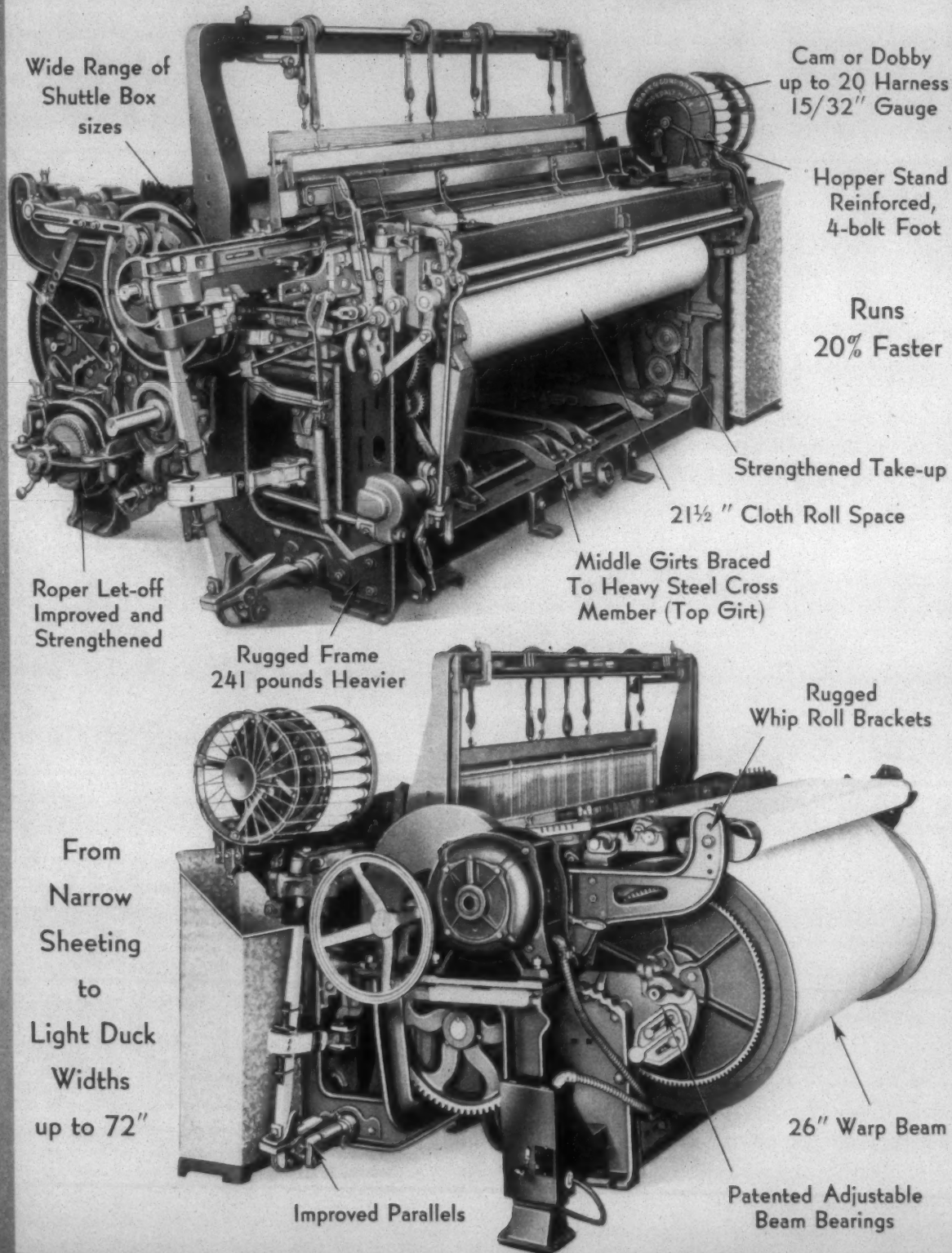
Mr. G.: That is right.

Mr. C.: It might be interesting to say that the white pine boxes weigh only from four to six pounds when full of yarn. In other words, we have one side of filling doffed in that box. Someone may get the idea that the box is very heavy, but it is not. The boxes have a handle in

(Continued on Page 43)

THE NEW DRAPER XP MODEL

FOR HEAVY COTTON FABRICS



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Georgia Mill Men Discuss Weaving and Slashing

THE Textile Operating Executives of Georgia held the regular fall slashing-weaving discussion meeting September 21st at Georgia Tech, Atlanta, with visitors from Georgia, Alabama, North and South Carolina. J. C. Platt, agent, Chicopee (Ga.) Mfg. Corp., presided, with Erwin R. Lehmann, of Langdale, and Henry B. Robinson, of Columbus (Ga.) Mfg. Co., leading the weaving and slashing, respectively. Officers for the ensuing year are George E. Glenn, superintendent, Pepperell Mfg. Co., Lindale, general chairman; Erwin Lehmann, vice-chairman; and Robert W. Philip, *Cotton Magazine*, secretary-treasurer. Floyd B. Watson, of Griffin (Ga.) Mills, was elected to the executive committee.

The first question pertained to methods of handling oily and undesirable filling; several methods were given as follows: (1) overseer of weaving inspects filling and returns it to room where it was made; (2) loom fixers take care of oily filling on their sections, which makes them be more careful in handling it; (3) oily filling is used to start up new warps; (3) soiled filling is used in 'plied selvages.

In a discussion of accident hazards in the weave room, it was voted that oil and/or wet floors, tools slipping and lifting of warps are greatest physical hazards. Operatives breaking safety rules was cause of accidents in general. Discussion turned to use of proper tools and several mills inspect the fixers equipment and require that the tools be kept in order so that injury will not result from tools slipping. One mill even supplies the fixers with tools.

Only one plant keeps a man in the weave room especially to fix Midget feelers and Stafford thread cutters, most of the mills leaving this work to the individual fixers.

Questions were asked about determining the size of the bunch on a filling quill, and it appeared that though some of the men considered the rule of "three times the width of the cloth" sufficient yardage in a bunch, a bit more should be added to the bunch as a margin of safety. One mill uses five times the width of the cloth in his 40-inch looms, but other men stated that the bunch would be too large if this much were used on heavy filling, and in such cases it was the practice to put as much filling in the bunch as possible without getting the bunch so large that it would not work at the loom.

In order to keep straight warps at the tying-in machine

it was found that it is good practice to insert lease sticks in the pattern and to brush the warp out carefully, letting the strokes go from the gummed tape up instead of rooting down and brushing toward the tape. It was further brought out that the use of gummed tape to hold the doffed slasher warp is almost essential.

Some discussion took place on "who passes on broken or worn loom parts," and the consensus was that some person in authority should be appointed to do this, though in the person so designated varies with the individual plant.

Several mills reported storing reeds in racks to prevent their being damaged, and in each instance it was emphasized that the reeds be stored in a dry place in order to prevent rust forming. Mills also reported satisfactory experience with reed cleaning machines.

All men reporting on the use of larger loom beams were pleased with the results, though it was brought out that it is necessary to change the gears and in some instances use a low-range let-off.

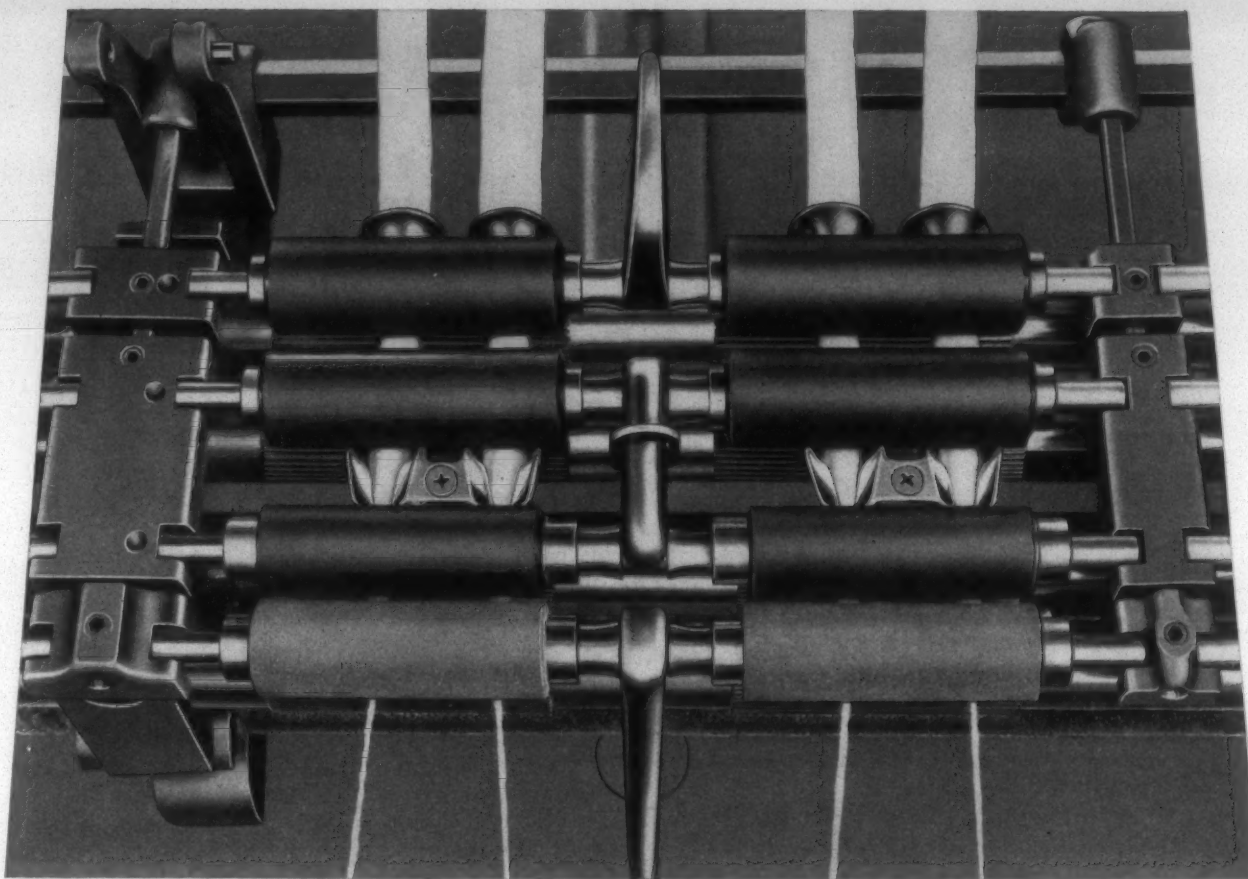
Getting onto the slashing questions, most men reported using no additional mildew preventive in the size mixture, other than that already in the size compound. To prevent slasher squeeze rolls running off center, it was suggested that the bearings or journals be built up, or wooden blocks inserted.

Run-outs on slasher section beams were next discussed, and the amount varied with each plant. One plant running dyed section beams said that he allows 250 yards less on the dyed beams to take care of the stretch.

Two mills reporting on weights of slasher squeeze rolls (both plants equipped with high speed slashers) said that the 150-pound roll is used. One mill said that it is not necessary to change weight of roll when speed is varied.

It was suggested that the inside of beam heads should be painted or varnished to prevent rusting, and that by beveling the edge of the presser roll, the presser roll could be prevented from scraping the paint off the beam head.

B. H. Crawford, Textile School of Alabama Polytechnic Institute, Auburn, Ala., and secretary of the Alabama Textile Operating Executives, a newly-formed textile association similar to the Textile Operating Executives of Georgia and the Southern Textile Association, was present and invited all mill men to attend the first discussion meeting of the Alabama group at Auburn, Ala., on November 9th.



TOP VIEW of the Model J-3. Note how the Forming Trumpet gathers the wide ribbon of fibres, and transforms it into a uniform compact tubular shape just before it reaches the final drafting zone.

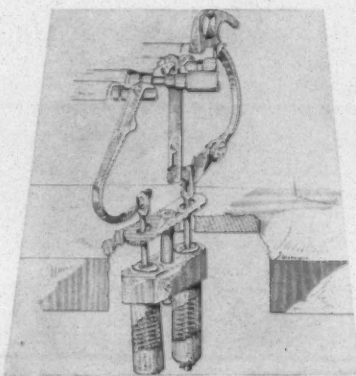
WITHOUT CONTINUOUSLY EFFECTIVE FIBRE CONTROL NO LONG DRAFT SYSTEM CAN BE SUCCESSFUL . . .

An assembly of precision made parts whose design does not produce continuous fibre control, is just as unsatisfactory as an assembly of poorly made parts. With either the roving will be lumpy and uneven . . .

resulting in yarn of poor quality and low breaking strength . . . and with increasingly higher operating costs in the spinning room.

The Model J-3 Controlled Draft Roving Assembly consists of precision built parts which have been designed to produce continuous fibre control in every drafting zone. The result is smooth even roving, even though the drafts

reach 25 or 30 with 1" or 1½" staple. Consequently the conventional slubber and intermediate are useless and have been successfully eliminated and replaced by a single roving process.



THE SPRING PRESSURE ASSEMBLY, showing the pressure springs in their casing, the beams, levers and stirrups of the pressure distributing system.

Thus it can be seen how the saving in power, floor space . . . and in capital and operating charges, frequently makes an installation of the Model J-3 a self-liquidating investment.

Our engineers would like to give you detailed facts showing the savings, improvements and economies which can be effected in your mill through the installation of the Model J-3.

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Erecting, Overhauling and Fixing Looms

By Frank D. Herring

Following is the ninth chapter of a series of articles on loom fixing and loom maintenance by a practical mill man. Accompanied by illustrations of all portions of a loom, this series will go into minute detail explaining the various motions and their settings, timings, repairs, etc.

Part 9

Setting the Numbers 17 and 21 Sliding Bar Warp Stop Motions With the Number 11 Knock-Off

The number 17 sliding bar warp stop motion has four banks of drop wires. The number 21 has six banks. The number 11 knock-off is used with both motions with the friction pulley driven by either motor or belt. The number 12 knock-off is used on looms with tight and loose pulley. Both knock-offs stop the loom with the shuttle in

difference in the setting of the sliding bar stop motion according to the knock-off. With the number 11 the parts are set with the lay in extreme back position, with the number 12 in the extreme front position. All the moving parts are set on the center of their movements. The directions for setting follow, with diagrams, and proving tests given. Assemble the girt with sliding bars and other parts attached. Place the girt sufficient distance back from the back harness to allow for proper shedding. Adjust the height of the girt so that, when sheds are open on both harness, there will be a clearance (A), (Figure 30), between bottom of slot in drop wire and bottom of feeler bar holder to prevent any lifting strain on the bar. (On early sliding bar stop motions adjustments was secured by moving the whole stop motion. They are now made with feeler bar ends with space between feeler bars and warp supports adjustable to the warp requirements. This adjustment is made through adjusting studs (H) and set screws (F). Later motions have in two-piece feeler bar ends (B-E) a means of tilting the stop motions to facilitate this adjustment.

Set the lay in extreme back position with the shuttle in the right-hand box. Set the oscillator cam with the follower (J) at center of motion as shown in Figure 30. Set the oscillator rod end (K) central in slot in oscillator arm. Through cap screws (L) adjust rod so that top oscillator rod end (K) will be in line with bottom of front warp support. Loosen set screws (M) in oscillator arm (N) and the sliding bars as follows: have the teeth (G) of sliding feeler bar completely close the notches in feeler bar holder, with feeler bar fingers (P) vertical. Studs (H) will be approximately central in slots of feeler bar holders. Tighten the set screws (M), being careful to preserve the settings as made. Loosen the set screws (O) in feeler bar finger base. With plunger finger (D) held against feeler bar finger trips (E), push plunger holder (F) through finger base until the plunger just touches plunger finger (D), being careful plunger is not pushed into holder or the knock-off raised. Tighten the set screw (O). Knock-off stand (Y) assembly is positioned under the lay by adjusting connection when shipper handle is off and knock-off rod end (T) is pushed towards back of loom on knock-off stand. Adjust connection to shipper handle so that parts clear rim of wheel. Move the lay about an inch from back position and pull handle on. Adjust the knock-off stand until top of knock-off (S) lines up with top of knock-off rod end (T) and surface (K) is about $\frac{1}{8}$ inch below knock-off bunter (V) as shown. Loosen set screw (B) and adjust plunger

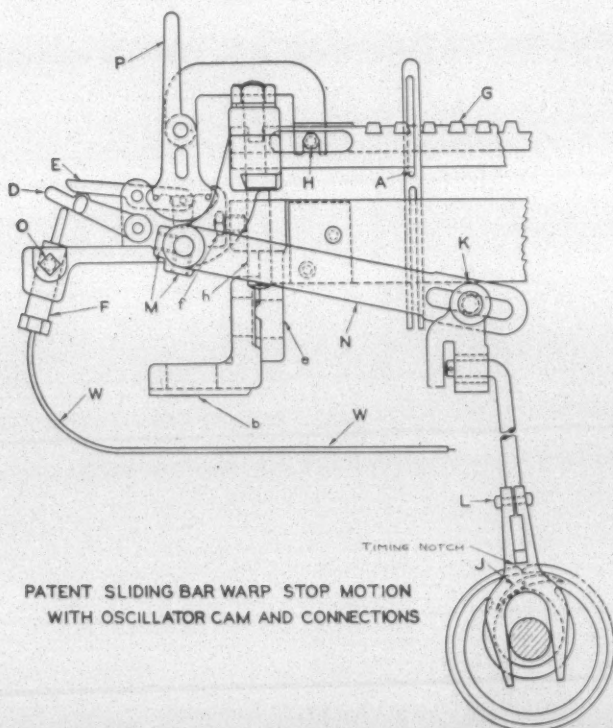


Fig. 30

the left-hand end, or box, and the lay on bottom center. The tight and loose pulley needs time for the belt to clear the pulley, so the number 12 (Figure 32) is tripped on the forward movement of the lay, and the number 11 (Figure 31) on the backward movement. This leads to a

holder (R) so that plunger will clear under side of knock-off (S) by $1/32$ inch and tighten set screw. Connection must not bind on stud in shipper handle (X). Push the lay to back center position with shipper handle off and knock-off rod end (T) pushed clear back. Loosen cap screw under lay and set knock-off bunter (V) in front of knock-off (S) with enough clearance to let knock-off drop free from bunter after a warp stop so the shipper handle can be pulled on. Tighten the set screw. To test clearance between knock-off rod end (E) and bunter (V), slide rod end forward and back, moving the lay to find close point. There should be no interference when the shipper handle is pulled on. The sliding bar warp stop motions are designed to stop the loom with the following results: with the crank on bottom center; with the shuttle in left-hand shuttle box; with the indicator (P) showing bank where wire is down; with warp yarn opened at the broken end. To prove your setting will accomplish these results: stop the loom running under power by inserting a drop wire to be caught, first with the sliding bars moving from left to right; second, from right to left. The drop wire should be firmly gripped and canted to one side in both cases. If the wire is released, the setting is not right or the brake is not efficient. There will be difference in width of open-

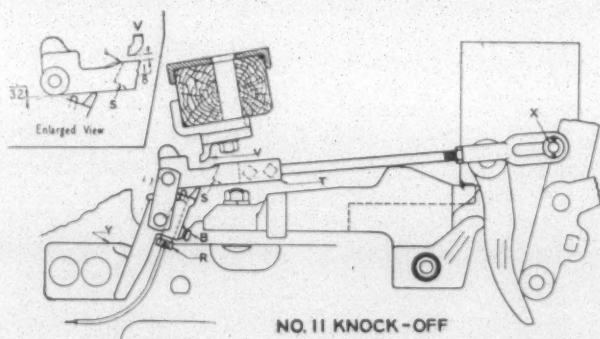


Fig. 31

ing in the warp, due to several causes, but if the wire is firmly held with the bars moving either way, the setting is right.

Comments On Warp Stop Motions

The warp stop motion is one of the most important and complicated parts of the automatic loom. There are so many things to prevent the stop motion from working properly, and so many reasons why it should work properly, it should be given close expert attention at all times. The stop motion should be gone over and checked very carefully every time a warp is run out of the loom. The loom should be run some when the warp is out and the stop motion tested with a drop wire to determine if it will stop off with drop wire down at each end and in the center. A great many seconds are made from faulty operation of the stop motion. I have previously stated that all moving parts of the stop motion should be set on the center of their movements. This may seem rather vague to some, so I will try and explain what is meant by this statement. Starting with the oscillator cam, this is the source of power for driving the stop motion parts. We will say that the oscillator cam follower is resting at exactly halfway point of its stroke, up and down, on the cam. All the other parts which are moved by the stroke of the cam should be at halfway of their respective strokes

or movements. Excessive wear, creating lost motion in any of the stop motion connections or bearings will result in faulty operation, and should be replaced with new parts. Most mills use feeler men, or head loom fixers, or both, and it is wise policy to have one of these men check over the stop motions when the warp is out. This is so important that the responsibility should be placed on some capable man, or at least as few individuals as possible. Shown in Figures 28 and 29 is the single thread stop motion. This is the stop motion most generally used. In Figure 30 is shown the cam arrangement and other parts of the sliding bar stop motion. By a close study of these photos and sketches one should be able to acquire a thorough knowledge of the exact settings of these parts and thereby eliminate guesswork entirely.

Sometimes seconds show up in the cloth room where warp threads have run out and caused defective cloth. This, of course, is caused by the stop motion failing to function properly and sometimes it is not a fault of the stop motion itself. There are a number of things that will prevent the stop motion from doing its duty. Improper

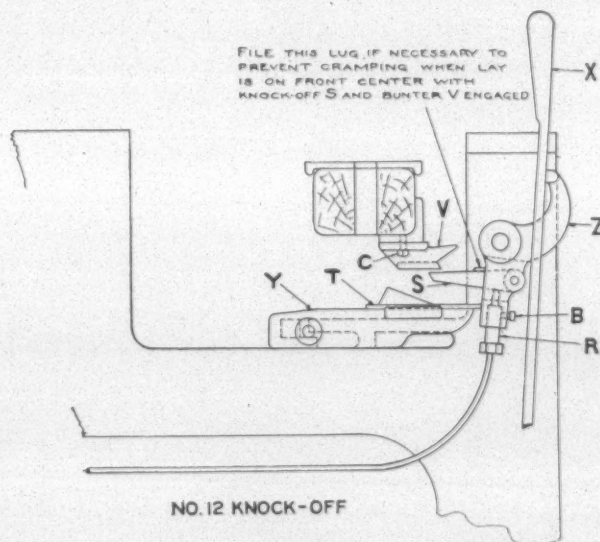
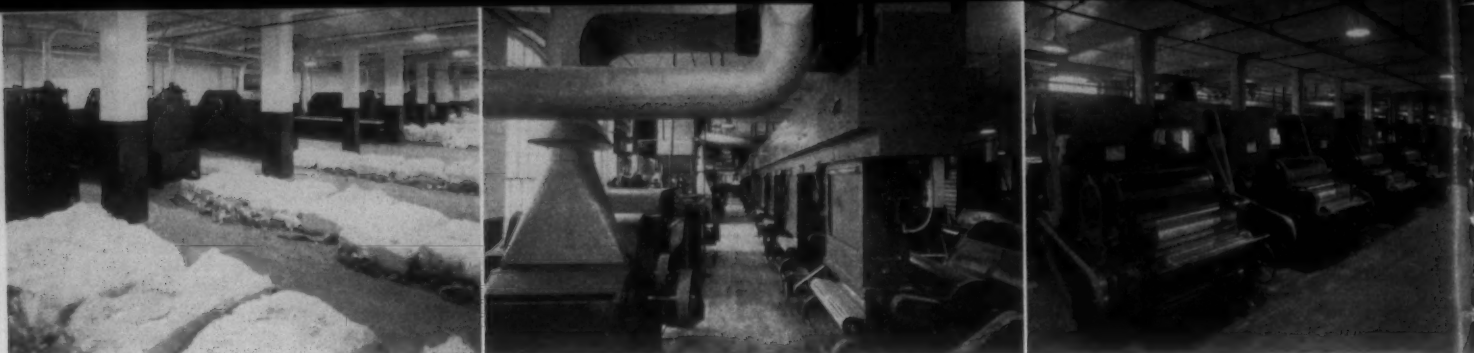


Fig. 32

harness setting, not allowing the sheds to open up back to the drop wires, allowing the broken threads to become matted up or tangled and thereby hold the drop wire up too long after warp thread has broken. On some stop motions cotton will accumulate in the girt and hold the drop wires up after end is broken, therefore the girts should be kept blown or cleaned out at all times. A bent drop wire bar will sometimes prevent the drop wire falling after thread is broken. A drop wire bar too high will prevent the drop wire falling far enough to be caught properly by the feeler bar. Drop wires should never be bent. Once a drop wire has been bent it is ruined, because they cannot ever be properly straightened again. A few bent drop wires on the bar will create a too crowded condition and thereby prevent the falling of the wires after thread is broken. Some weave room men seem to underestimate the importance of keeping the warp stop motions in first-class condition at all times. The weavers are enabled to run upwards to a hundred and more looms by virtue of two facts: one is, the automatic bobbin

(Continued on Page 40)



Modernization Program at Bibb Mfg. Co.

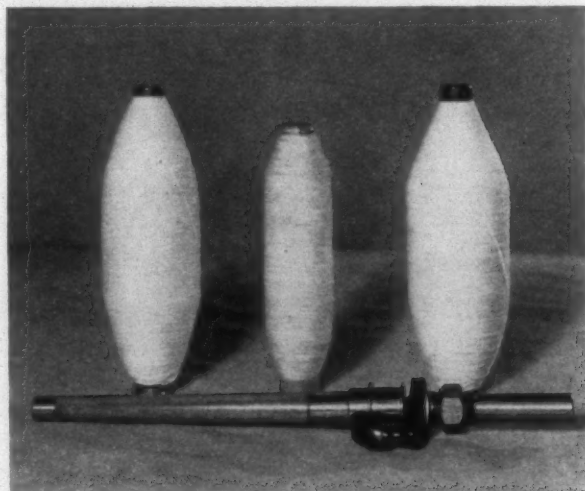
THE Bibb Mfg. Co., with plants at Macon, Columbus, Porterdale and Reynolds, Ga., are now engaged in a very extensive modernization program, primarily for the purpose of improving, still further, the quality of their now famous "H-R" (Heat Resisting) tire cords.

While the modernization program includes all of their plants, it is especially prominent at the Columbus plant, which has 124,648 spindles, and is devoted to a large extent to the "H-R" tire cord.

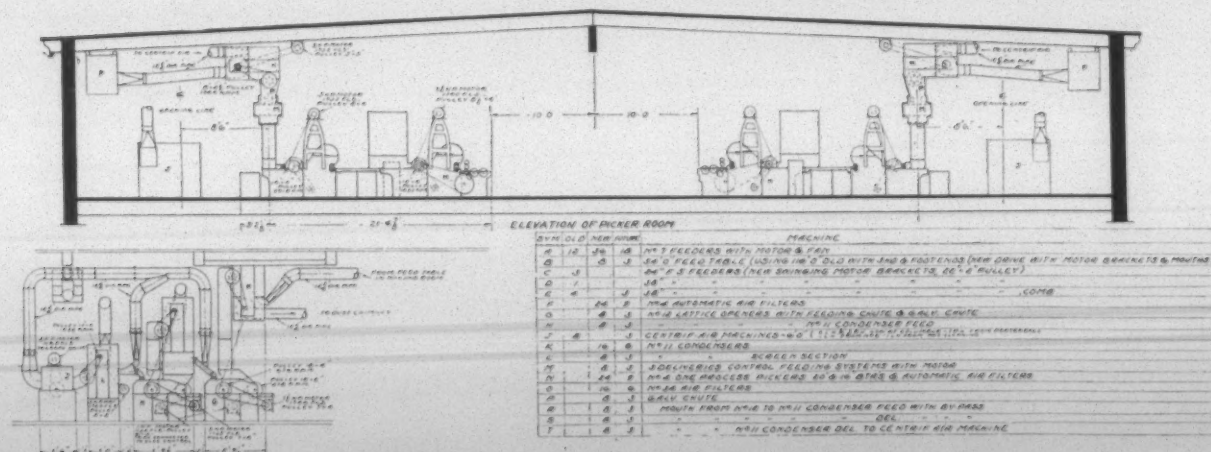
Every card has been equipped with Saco-Lowell continuous strippers and all drawing frames have been changed from metallic to cork covered rolls. All roving is to be equipped with Saco-Lowell one-process controlled draft and all spinning is of long draft large package type. Whereas the spinning bobbin formerly contained 5 ounces of yarn, they will in the future carry 14 to 14½ ounces. The accompanying cut shows one of the former spinning bobbins between two of the future bobbins. The spinning frames will be equipped with taper tube spindles. The spindles are exceptionally large and are of the wooden sleeve type. The bobbins fit the top of the spindles rather than the bottom and the driving force therefore comes from the top. Spinning frames will be 4¾-inch gauge, 3½-inch rings and 9-inch traverse. They will have 240 spindles each. Small ring twistors are to be replaced with Saco-Lowell large ring frames.

A feature of the modernization of the Columbus plant is the opening and picking room, shown upon the next page, and which is said to be the largest picking and opening room in the world. It will handle 1,000,000 pounds of cotton per week and we do not know of any other which will have such an amount.

The opening room consists of 11 lines of blending feeders, each consisting of 6 F-7 feeders delivering to the mixing feed table. The cleaning machinery is installed in back of the picking, each line of mixing feeders delivering to a No. 11 dust and leaf extractor feeding lattice openers in tandem with a leaf extractor between. The stock then



passes through a third leaf extractor delivering to a cleaning machine, from which the stock is fed through a dust and leaf extractor delivering to a controlled feed distributor, which in turn delivers to 3 2-beater one-process pickers. The pickers are all of Saco-Lowell's latest design



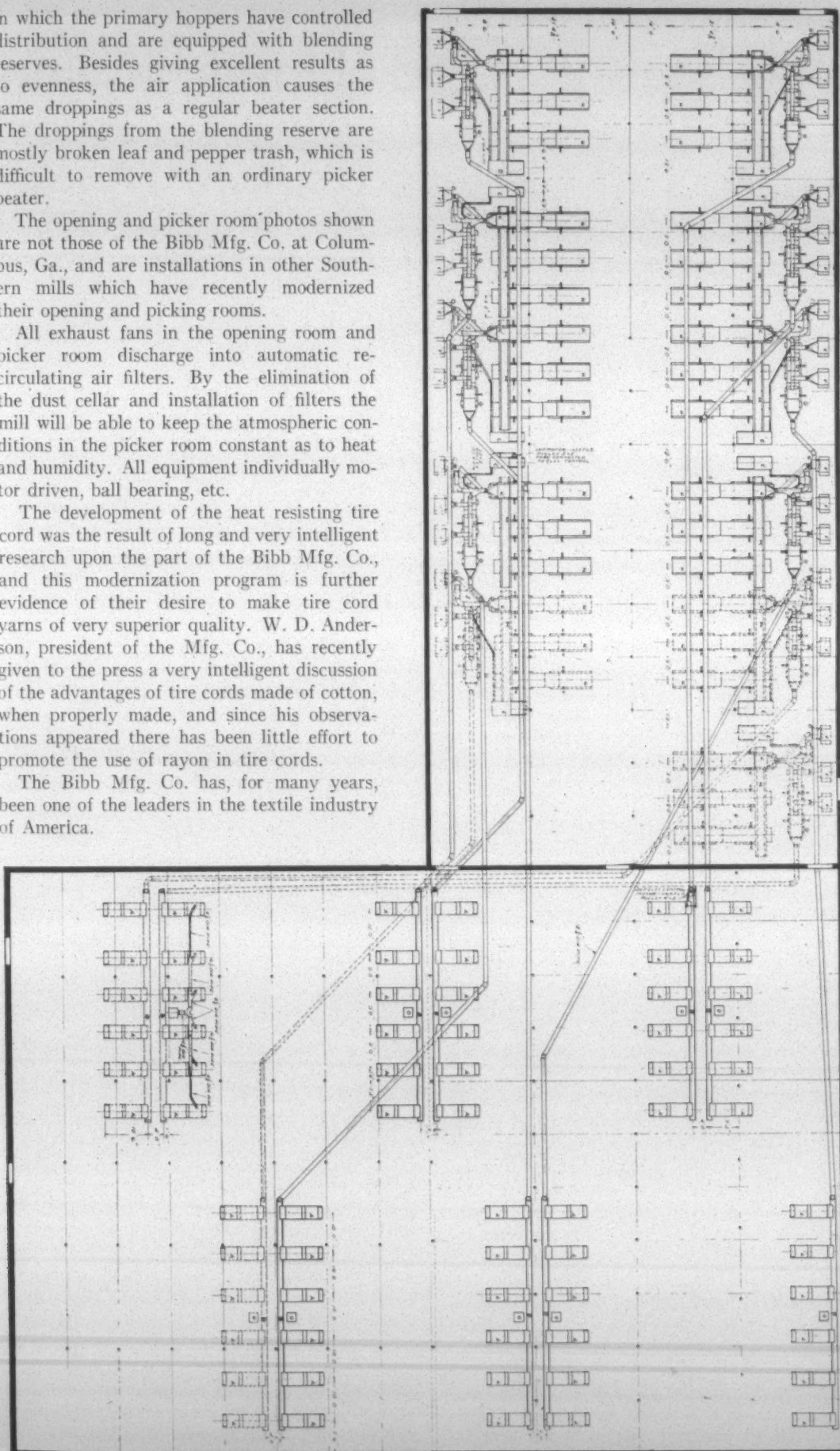
in which the primary hoppers have controlled distribution and are equipped with blending reserves. Besides giving excellent results as to evenness, the air application causes the same droppings as a regular beater section. The droppings from the blending reserve are mostly broken leaf and pepper trash, which is difficult to remove with an ordinary picker beater.

The opening and picker room photos shown are not those of the Bibb Mfg. Co. at Columbus, Ga., and are installations in other Southern mills which have recently modernized their opening and picking rooms.

All exhaust fans in the opening room and picker room discharge into automatic recirculating air filters. By the elimination of the dust cellar and installation of filters the mill will be able to keep the atmospheric conditions in the picker room constant as to heat and humidity. All equipment individually motor driven, ball bearing, etc.

The development of the heat resisting tire cord was the result of long and very intelligent research upon the part of the Bibb Mfg. Co., and this modernization program is further evidence of their desire to make tire cord yarns of very superior quality. W. D. Anderson, president of the Mfg. Co., has recently given to the press a very intelligent discussion of the advantages of tire cords made of cotton, when properly made, and since his observations appeared there has been little effort to promote the use of rayon in tire cords.

The Bibb Mfg. Co. has, for many years, been one of the leaders in the textile industry of America.



Social Security and Unemployment Discussed at Gaston County Meeting

The first part of the report of the Gaston County Division of the Southern Textile Association, which was held at the Boy Scout Headquarters in Gastonia on September 27th, was contained in the issue of October 15th. It dealt chiefly with a talk by D. W. Lahbert, of the Social Security Administration, and explained that phase of the Social Security Program. The stenographic report of the meeting follows, with a talk on the unemployment compensation phase of the program. H. G. Winget, chairman of the Division, presided.

Mr. Winget: We are glad to have Mr. Brockman with us. When I called Mr. Brockman and asked him to send somebody down, he said he would come himself.

Earl W. Brockman, N. C. State Unemployment Service: I enjoyed my meeting with this group back in February and heard the program with a great deal of delight. When Mr. Winget called me a few weeks ago, I told him I would be glad to come along with Mr. Lambert and try to go into our phase of this social security program. You know, it is a terribly big thing and a great many of the folks who come to our office call it social security and I don't know whether they call it that when they come to Mr. Lambert's office or not, but I judge they do. It is social security in all its phases. We want to try to get into the minds of folks, or get out of the minds of folks, the wrong ideas they have with reference to unemployment insurance and confusion with reference to that and of old age and survivors insurance because nine-tenths come into our office and say, "They have been taking the money out on us and we want to draw it." You know that the employee does not pay one penny of this unemployment tax. Mr. Lambert has explained to you how the old age and survivors insurance provision of the law does work and that confuses it in their minds with unemployment insurance. What they are actually drawing is the tax an employer has paid which has provided a fund whereby a man who becomes unemployed is eligible to draw payments if he meets certain conditions.

I want to say first that as Mr. Lambert said to you, unemployment insurance and all these other provisions of the Social Security Act, except the one he gave special emphasis to, are handled by your own State. All those eight or nine things there were parts of the Social Security Act which covers a great multitude of things. The Federal Government itself administers the old age and survivors insurance. And all those others are handled by your State. The Unemployment Service Division is a State agency. Now, to tie us in with the Federal level. The Social Security Board itself, of course, is our boss in Washington as far as the Federal level is concerned. The

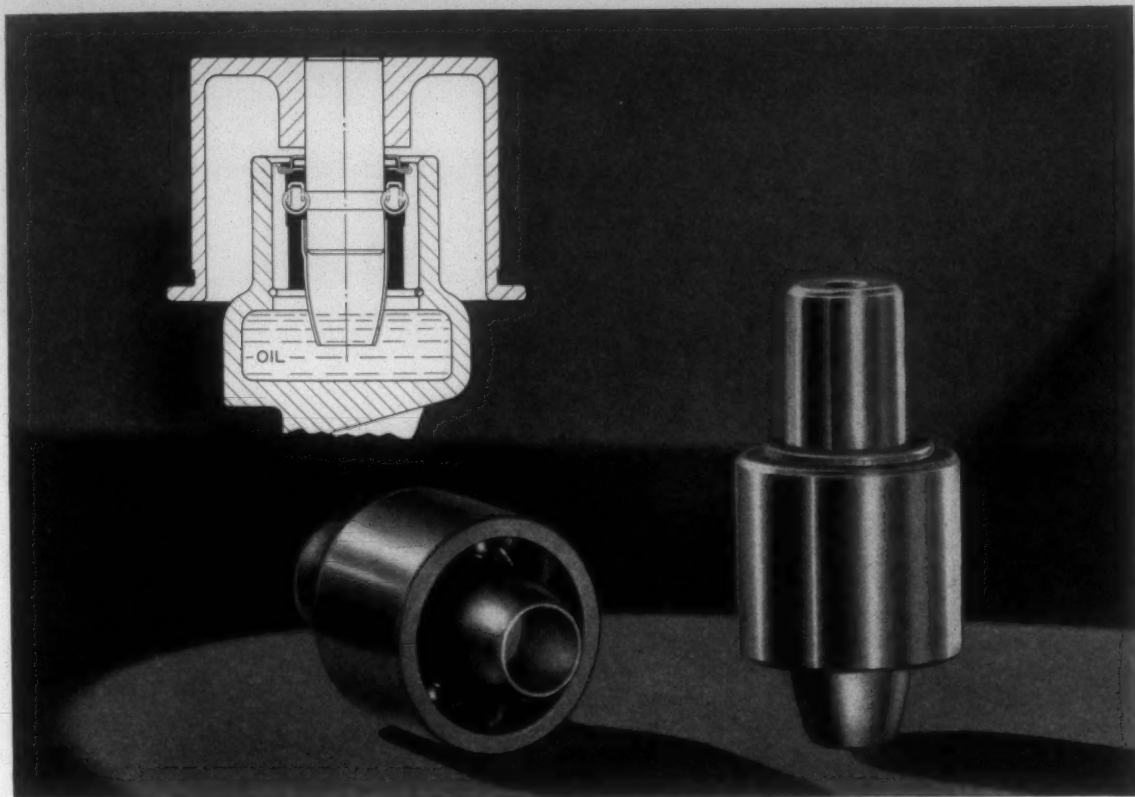
Social Security Act, when it was passed, provided that the several States should set up their own unemployment insurance law.

Your own State called its legislative members in special session in 1936 and passed the unemployment compensation law for North Carolina which went into effect immediately and they set up a commission to administer the law in North Carolina; and that commission is composed of three members: Mr. Charles G. Powell, Chairman of the Commission, Mrs. J. B. Spilman is one of the Commissioners, and Mr. Forrest H. Shuford is the third member of the Commission. Those three people are your Commission on Unemployment Insurance for the State of North Carolina. This Commission has to work in conjunction and in co-operation with the Federal Social Security Board in Washington and that law that had to be passed by your own State Legislature was approved by your Social Security Board in Washington.

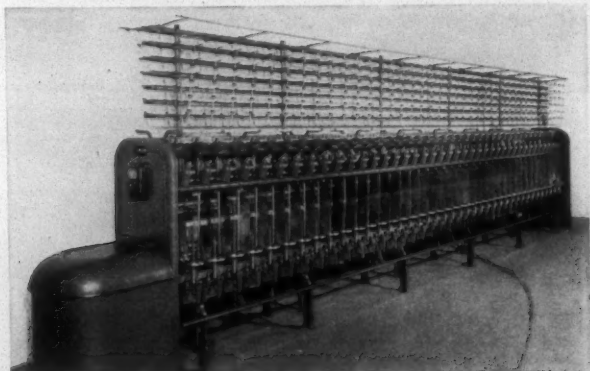
So all the States of the whole nation have an unemployment compensation law. They may differ in some respects, but in general they are very similar because unemployment insurance is unemployment insurance, whether in California or North Carolina; and the same general provisions do prevail.

This Social Security Board is further broken down as far as we are concerned into a Bureau of Employment Security. This Bureau has two divisions under it and the administration on our State is patterned somewhat after that. We have the Employment Service Division and Unemployment Compensation Division in the Federal level and then we come on down to the State level and we have the two divisions in North Carolina under our North Carolina Commission, which I named a moment ago, and that is the Unemployment Service Division and the Employment Service Division. Each of them have a director. Mr. R. Mayne Albright is director of the State Employment Service Division and Mr. E. W. Price, director of the Unemployment Compensation Division.

This brings us down to our level here in Gastonia. You have one office, which is the office of the North Carolina Unemployment Compensation Division and the Employment Service Division. The reason I am mentioning that is to try to classify in your minds just how the whole thing works so that it will be easier for you to understand just what we are trying to do in our local office. The Unemployment Compensation Division, with E. W. Price as its director, has to do with the collecting of this tax and they assist the employers in making out reports and any other service they can render to that particular division in collecting the tax because that tax is payable in North Carolina, and is payable to the Commission itself in Raleigh and of course it does go into a special fund

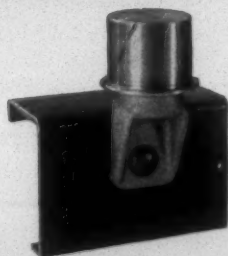


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↑ New Atwood 5 B machine designed for greater efficiency, speed and economy of doubling and twisting Silk and Rayon yarns. Is equipped with New Departure Vertical Tension Pulley Bearings.

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NEW DEPARTURE

THE FORGED STEEL BEARING

which is turned over to the U. S. Treasury, but is kept in a special fund to the credit of North Carolina, and that is a 3% payroll tax or 2.7. It is to set up this fund to pay this unemployment insurance, but the other divisions which is the Employment Service Division and is headed by Mayne Albright, has to do with all the functions of the local office out in the field, locating jobs for the unemployed, investigating the validity of claims, assisting employers in finding workers, etc. So that this office here in Gastonia and every one of the other 45 in North Carolina (there are 46 in the State) represent the Commission and does all of the necessary functions in the field for carrying on the duties of the Employment Service Division and the handling of claims for unemployment insurance in the field or out in the community which we serve. You will be interested to know that from our Gastonia office, since 1938, when unemployment insurance came into effect, 138,691 checks have been delivered to people in Gaston and Lincoln Counties, and these checks totaled \$879,710.93. All of that money has gone into the hands of workers in industry in these two counties and that money represents taxes that have been paid by the employers in this area but it has come back to those unemployed workers when they were unemployed and assisted them in getting grocery bills, rent, insurance, etc., paid.

Mr. Winget: What percentage do you estimate has been paid back? How much more has been collected than has been paid back? The fund is growing, isn't it?

Mr. Brockman: There has been \$14,000,000 paid out in the State and I think in the fund itself now, to the credit of the Unemployment Compensation Commission there is \$22,000,000. They have collected about \$36,000,000 since the law became operative and they have paid out about \$14,000,000 in the State of North Carolina since 1938 and we now have in the fund about \$22,000,000 to the credit of the Commission. The provisions of the law are such that this money must be kept to the credit of North Carolina to pay unemployment benefits in North Carolina and that money draws interest at a certain per cent in the United States Treasury and it comes back to North Carolina as it is needed.

We have over 25,000 people in Gaston County who are covered with unemployment insurance. As you know, a firm in Gaston County that works eight or more people is liable for the unemployment insurance tax and the firm itself pays that tax and not the employee.

I was talking today to a good woman in our office who was drawing an unemployment insurance check and she had the wrong conception altogether about her privilege and right in this matter. She said that her employer told her it was her money, to go and get it. I said, "Yes, but did he tell you that he had paid that tax in order that you might draw this insurance and did he tell you that you had to meet certain conditions; that you must be able to work, you must be willing, you must be available to work and that if you have worked any you must report your work, earnings and the time that you worked?"

The question came up with reference to some employment that she had which was not in the type of work that she commonly did and she thought that was not even included and she then came out with this statement, "Well, my brother-in-law draws about \$100 and he was farming all the time." I said, "Well, lady, your brother-in-law told a story each week and he holds himself liable

by saying he was unemployed even though he didn't draw any actual wages, he said he was unemployed, was ready and willing to work and was available for work, and had not worked." So, of course, she saw the point we were trying to make and a great many people have that idea.

Here are a few brief statements with reference to the minimum requirements of a public employment office. As you know, we are called an employment office and the Employment Service Division has the responsibility of taking all the claims and trying to secure them jobs. So these two types of work are carried on in the local office. When a person comes into the local office, the first thing they must do is to register for a job and a great many of them probably don't get full conception of what that means. We take their registration and then try to assist them in getting jobs and do refer a great many of them to jobs. While they are waiting for that job they are eligible to draw insurance compensation. In the case where no work is available and of course this requirement must be fulfilled, they are eligible to draw unemployment insurance if they have worked during a base period. In North Carolina the base period goes by calendar year and it changes every July. The minimum requirements of a public employment office are in three different categories:

First, in its relation to the unemployed person. Second, its relation to the employers of the community, and, third, in its relation to the public, to the community as a whole. If a public employment office is meeting the minimum requirements it must be a place where an unemployed man or woman will think of immediately if he should become unemployed. Think of it as a place where he might go and register for a job and where he might find information with reference to jobs and certainly an opportunity to be referred to an employer who might need his services.

Number Two: The public employment office and its relation to the employer of the community. If it is meeting the minimum requirements, it should be a place where the employers of a community will think of when they need workers if they are needing workers in certain classifications and they want a place where they can find them easily and quickly and find workers that can be sent to them who are properly classified and capable of filling the jobs for which they have openings; why then it is meeting those minimum requirements if the employers of the community think of it as a place where those workers might be found. Many of our textile mills have villages around them and you have people living there and you think of folk on your village when you need extra workers, and you should; but if you needed other workers that are not available, we hope that you will think of your employment office as a place where labor is available. A labor storehouse because all of the workers who come through this office here in the Masonic Temple are men who have been laid off by you, and you, and you, and if they are going back into industry they are probably going back into your mills in this area and they are there and we have them registered. Then if you think of us as an employer, if we serve you well, then you will think of us the next time when you need workers.

The third category is that if Mr. Dickson, of the Chamber of Commerce, the Civic Clubs of Gastonia, the city and county authorities of this community, and other

(Continued on Page 41)

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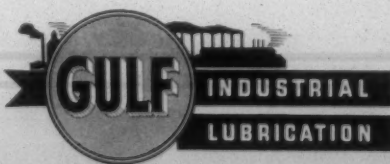
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Cotton Textile Institute Elects

At the meeting of the Board of Directors of the Cotton-Textile Institute, held on October 23, 1940, the following were elected to its Executive Committee: George S. Harris, Riverside & Dan River Cotton Mills, Danville, Va.; Chester E. Hatch, Brandon Corp., Greenville, S. C.; G. H. Milliken, Dalas Mfg. Co., New York City; J. T. Phillips, Buck Creek Cotton Mills, Siluria, Ala.; R. C. Thatcher, Standard-Coosa-Thatcher Co., Chattanooga, Tenn.

Also serving on the Executive Committee of the Cotton-Textile Institute are the following: Robert Amory, Nashua Mfg. Co., Boston, Mass.; Howard Baetjer, Mt. Vernon-Woodberry Mills, Baltimore, Md.; W. N. Banks, Grantville Mills, Grantville, Ga.; C. F. Broughton, Wamsutta Mills, New Bedford, Mass.; Fuller E. Callaway, Jr., Callaway Mills, LaGrange, Ga.; Jas. A. Chapman, Jr., president, Cotton Mfrs. Assn. of S. C.; Herman Cone, Proximity Mfg. Co., Greensboro, N. C.; Amory Coolidge, Pepperell Mfg. Co., Boston, Mass.; G. H. Dorr, chairman of the board, The Cotton-Textile Institute, Inc.; Russell T. Fisher, president, National Association of Cotton Mfrs.; Percival S. Howe, Jr., American Thread Co., New York City; Allen F. Johnson, Florence Mills, Greenville, S. C.; Joe L. Lanier, president, Alabama Cotton Mfrs. Assn.; K. P. Lewis, Erwin Cotton Mills Co., West Durham, N. C.; J. A. Miller, president, Cotton Mfrs. Assn. of Ga.; C. T. Murchison, president, The Cotton-Textile Institute, Inc.; A. G. Myers, president, Cotton Mfrs. Assn. of N. C.; Fred W. Symmes, president, American Cotton Mfrs. Assn.

The Board of Directors also elected the following officers for the ensuing year: Goldthwaite H. Dorr, chairman of the board; Claudius T. Murchison, president; Charles F. Broughton, vice-president; Fred W. Symmes, vice-president; Paul B. Halstead, secretary-treasurer.

The following have been elected to the Board of Directors of the Cotton-Textile Institute for three years, their term expiring in October, 1943: D. W. Anderson, Pacolet Mfg. Co., Pacolet, S. C.; Allan Barrows, Gosnold Mills Co., New Bedford, Mass.; Fuller E. Callaway, Jr., Callaway Mills, LaGrange, Ga.; J. A. Chapman, Jr., Inman Mills, Spartanburg, S. C.; J. H. Cheatham, Georgia-Kincaid Mills, Griffin, Ga.; A. H. Crossman, Utica & Mohawk Cotton Mills, Utica, N. Y.; E. S. Cunningham, Dallas Cotton Mills Co., Dallas, Tex.; R. C. Dick, Naumkeag Steam Cotton Co., Salem, Mass.; W. H. Entwistle, Entwistle Mfg. Co., Rockingham, N. C.; Paul Gifford, Bourne Mills, Fall River, Mass.; L. O. Hammett, Chiquola Mfg. Co., Honea Path, S. C.; Robert E. Henry, Aragon-Baldwin Mills, Greenville, S. C.; Percival S. Howe, Jr., American Thread Co., New York City; Allen F. Johnson, Florence Mills, Greenville, S. C.; Harvey W. Moore, Brown Mfg. Co., Concord, N. C.; T. M. Norris, Norris Cotton Mills Co., Catechee, S. C.; H. H. Rapp, Powdrell & Alexander, Danielson, Conn.; Paul A. Redmond, Alabama Mills Co., Birmingham, Ala.; H. G. Sim-

onds, Pacific Mills, Boston, Mass.; W. H. Suttentfield, Superior Yarn Mills, Statesville, N. C.; R. C. Thatcher, Standard-Coosa-Thatcher Co., Chattanooga, Tenn.; A. K. Winget, Ebird Mfg. Co., Albemarle, N. C.; George M. Wright, Republic Cotton Mills, Great Falls, S. C.; Walter S. Wyman, Bates Mfg. Co., Augusta, Me.

H. O. Ball, Pepperton Cotton Mills, Jackson, Ga., was elected for a one-year period, expiring in October, 1941.

Other members of the board, previously elected, whose terms do not expire until 1941 or 1942, comprise the following:

Terms expiring in October, 1941: Robert Amory, Nashua Mfg. Co., Boston, Mass.; Howard Baetjer, Mt. Vernon-Woodberry Mills, Baltimore, Md.; Harry L. Bailey, Brookside Mills, New York City; Frank B. Bradley, Eagle & Phenix Mills, Columbus, Ga.; E. N. Brower, Rockfish Mills, Hope Mills, N. C.; Herman Cone, Proximity Mfg. Co., Greensboro, N. C.; Amory Coolidge, Pepperell Mfg. Co., Boston, Mass.; Stuart W. Cramer, Jr., Cramerton Mills, Cramerton, N. C.; J. Holmes Davis, Spofford Mills, Wilmington, N. C.; Norman Elsas, Fulton Bag & Cotton Mills, Atlanta, Ga.; J. C. Evins, Clifton Mfg. Co., Clifton, S. C.; B. B. Gossett, Chadwick-Hoskins Co., Charlotte, N. C.; George S. Harris, Riverside & Dan River Cotton Mills, Danville, Va.; George Lanier, West Point Mfg. Co., West Point, Ga.; K. P. Lewis, Erwin Cotton Mills, West Durham, N. C.; J. Harold Lineberger, Acme Spinning Co., Belmont, N. C.; Geo. V. Meehan, Grosvenor-Dale Co., Providence, R. I.; G. H. Milliken, Dallas Mfg. Co., New York City; Ralph C. Perkins, Pilgrim Mills, Fall River, Mass.; Carl A. Rudisill, Rex Spinning Co., Cherryville, N. C.; George A. Sloan, New York City; Fred W. Symmes, Union-Buffalo Mills, Greenville, S. C.; George R. Urquhart, Manville-Jenckes Co., Manville, R. I.; George R. West, Jr., Dixie Mercerizing Co., Chattanooga, Tenn.

Terms expiring in October, 1942: W. N. Banks, Grantville Mills, Grantville, Ga.; Arthur B. Barnes, Ponemah Mills, Taftville, Conn.; S. Marshall Beattie, Piedmont Mfg. Co., Greenville, S. C.; Charles F. Broughton, Wamsutta Mills, New Bedford, Mass.; H. A. Burow, Bonham Cotton Mills, Bonham, Tex.; Donald Comer, Avondale Mills, Sylacauga, Ala.; B. F. Hagood, Glenwood Cotton Mills, Easley, S. C.; Gordon Harrower, Wauregan-Quinebaug Mills, Wauregan, Conn.; C. E. Hatch, Brandon Corp., Greenville, S. C.; W. H. Hightower, Peerless Cotton Mills, Thomaston, Ga.; Robert P. Hooper, Wm. E. Hooper & Sons Co., Philadelphia, Pa.; Weston Howland, Wellington Mills, Boston, Mass.; C. E. Hutchison, American Yarn & Processing Co., Mt. Holly, N. C.; L. L. Jones, Canton Cotton Mills, Canton, Ga.; P. L. Lamb, Nonquitt Mills, New Bedford, Mass.; J. A. Miller, Exposition Cotton Mills, Atlanta, Ga.; W. S. Montgomery, Spartan Mills, Spartanburg, S. C.; R. C. Moore, Rhodhiss Mills Co., Charlotte, N. C.; A. G. Myers, Textiles, Inc., Gastonia, N. C.; J. T. Phillips, Buck Creek Cotton Mills,

Siluria, Ala.; L. D. Pitts, Industrial Cotton Mills, Rock Hill, S. C.; T. Scott Roberts, Adelaide Mills, Anniston, Ala.; Scott Russell, Bibb Mfg. Co., Macon, Ga.; Charles A. Sweet, Sherman Mfg. Co., New York City; F. C. Williams, Roanoke Mills Co., Roanoke Rapids, N. C.

Holt Haywood Joins Valentine

T. Holt Haywood, of Winston-Salem, N. C., has again joined forces with J. W. Valentine & Co., of the J. W. Valentine Co., Inc., 40 Worth St., New York, and is now Southern representative for that company.



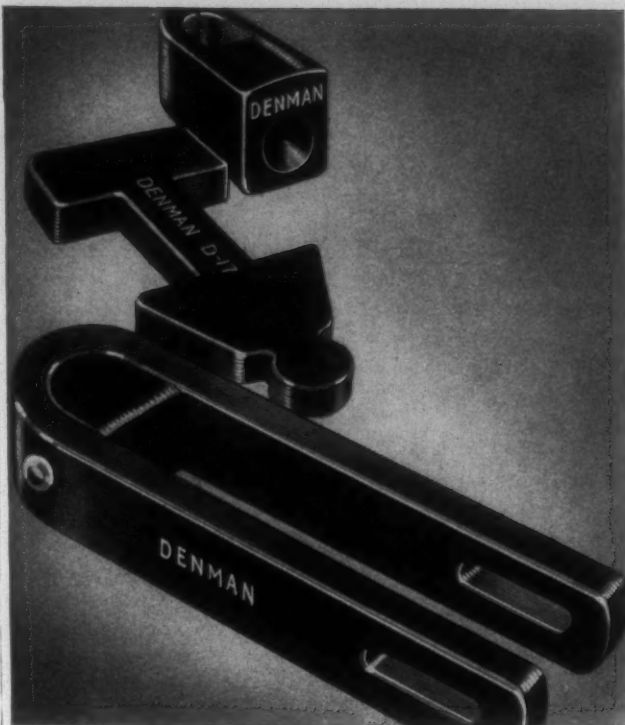
Mr. Haywood graduated from the University of North Carolina in 1907 and from the Philadelphia Textile School in 1909, going from there with Frederick Viotor & Achelis as designer in the J. E. Prior Department, which specialized on colored goods. At Mr. Prior's death that department became the J. A. Moseley Department and Mr. Haywood was Mr. Moseley's assistant, in charge of mill contact work. At Mr. Moseley's death in 1915 the department was changed to the T. Holt Haywood De-

partment and he became manager, which position he held until he moved to Winston-Salem on December 31, 1929.

While running that department T. Holt Haywood had what is said to have been the largest colored goods business of any selling organization in New York City and it was one of the first of the colored goods selling agencies to go on rayon goods, shifting the gingham mills from gingham to rayon when gingham began losing their popularity. When Mr. Haywood moved South he and his former associates, J. W. Valentine and Tom Mackay, incorporated the department and formed the company of Haywood, Mackay & Valentine, of which Mr. Haywood was chairman of the board. Later Joe Valentine took the greige goods mills and formed the J. W. Valentine Co., Inc., and, a short time later, the rest of the business was merged with Bliss Fabyan & Co. Later Bliss Fabyan & Co. decided to liquidate their business. Joe Valentine and T. Holt Haywood are now back together again, Tom Mackay in the meantime going with Eagle & Phenix Mills of Columbus, Ga., who are selling their goods direct.

J. W. Valentine & Co., Inc., are now handling the output of Erlanger Cotton Mills, Dacotah Cotton Mills and Wannonah Cotton Mills, of Lexington, N. C.; Glencoe Mills, Burlington, N. C.; Virginia Cotton Mills, Swepsonville, N. C.; Shelby Cotton Mills, Shelby, N. C.; Lafayette Cotton Mills, Lafayette, Ga.; Florence Cotton Mills, Florence, Ala.; Pepperton Mills, Jackson, Ga.; Rushton Cotton Mills, Griffin, Ga.; Eastman Cotton Mills, Eastman, Ga., and Buck Creek Cotton Mills, Siluria, Ala. Many of these mills have been with either T. Holt Haywood or J. W. Valentine for more than a quarter of a century.

Mr. Haywood has his office at 612 South Main Street, Winston-Salem, N. C., and keeps in close touch with the mills which his company represents.



DENMAN *must be Better*

Not so many years ago fabric loom parts were unknown. Today, after 8 years of extensive research—in comparing, testing and improving—DENMAN Fabric Loom Parts are standard equipment in leading mills throughout the textile industry.

Such widespread acceptance must be deserved—and that's why we say "DENMAN Must be Better."

for Lowest Cost per Loom per Year
Specify DENMAN

PICKERS • LUG STRAPS

HOLD-UPS, ETC.

The **Terrell Machine Co., Inc.**

CHARLOTTE, N. C.

Arthur Pilling, Danielson, Conn.	N. E. & Canada
W. S. Jasper, Elizabeth, N. J.	Penn. & N. J.
Geo. Thomas & Co., Ltd., Manchester, Eng.	European Agt.

NEW Equipment, Supplies, Catalogs and Bulletins

New Electrical Filling Stop Motion

An electrical filling stop motion for looms that works in conjunction with the electrical warp stop motion, and eliminates 28 parts of the conventional mechanical filling stop motion is the recent patent of George H. McRae, of Thomaston, Ga.

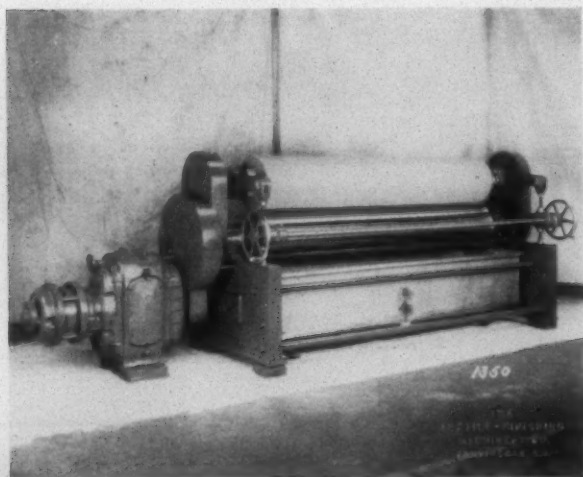
Consisting of only four parts that are not already on the loom, the device is extremely simple of operation and easy to install. The chief advantages claimed are the elimination of all moving parts of the filling stop motion with the one exception of the filling fork, and the removal of the filling fork grate, which is frequently a source of trouble.

Using the regular filling fork stand, a copper contact plate is installed in the place of the trigger which is usually engaged by the filling fork when the filling fails to come through the warp ends. Thus, when the filling fails to raise the fork, it contacts this plate, closing a circuit that is run through the warp stop motion, stopping off the loom just as if a warp end had broken.

Mr. McRae states that this device will eliminate thin places in the cloth and double filling. Also, it is so simple of operation that any loom fixer can install it and adjust it with ease. There is only one moving part to the device, which is the filling fork.

Special Heavy Two-Roll Padder

The illustration herewith is a typical illustration of the Textile-Finishing Machinery Co.'s new policy in connec-



tion with the building of equipment to the special requirements of any one of their clients in the textile or affiliated trades, according to a recent release by them.

Special features on this two-roll Padder include extra heavy welded steel framework, supporting an unusually

wide arrangement of rolls, close to 100" width. The bottom roll is of heavy brass-covered construction on cast iron center and the top roll is of rubber-covered construction on cast iron center, having the ends and hubs protected. Both rolls are fitted with a special slinger ring arrangement.

The machine is typically anti-friction bearing equipped throughout with heavy spherical self-aligning roller bearings for the two main rolls and special balanced gear equipment on both sides, allowing for a positive drive between the top and bottom rolls.

The machine is also fitted with a stainless steel immersion box, peculiarly adapted to the requirements of the purchaser of the machine.

The main drive is arranged through a motorized PIV unit allowing for a wide variation in speed.

Pressure attachments are of the latest compound lever and weight design, having all moving and rolling parts fitted with anti-friction bearings and with control of pressure by cross shaft, handwheels and enclosed worm and worm gear units.

New Yarn Conditioning Agent

The Burkart-Schier Chemical Co., of Chattanooga, Tenn., has released a new conditioning fluid, Tenesol, for cotton textile yarns. Used in dilute solution in water, its rapid wetting action affords a complete moisture regain in a minimum time, according to the company's announcement. Due to the hygroscopic nature of this product, there is excellent retention of the regain.

This yarn conditioning agent may be used in all types of conditioning and twist-setting machines, and yarns so conditioned show an even penetration and absorption of moisture, with no surface globules, or droplets of water, it is said. Because the twist is permanently set, weaving is greatly facilitated. There is said to be absolutely no harmful action upon the fibre, and no interference with subsequent dyeing and finishing operations.

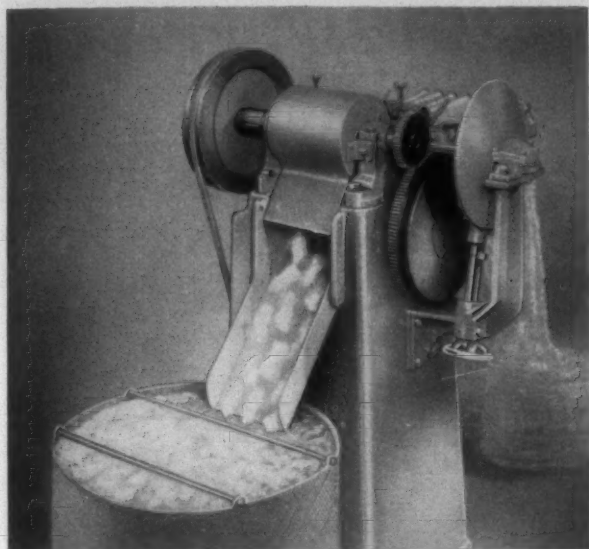
Tenesol is also said to be inexpensive to use. One gallon per hundred gallons of water is recommended. Sample and booklet furnished on request.

New Stokes-Butterworth Rotary Fibre Cutter

A new Stokes-Butterworth Universal Rotary Fibre Cutter, recently announced by H. W. Butterworth & Sons Co., Philadelphia, is achieving record poundage cutting fibre materials into uniform lengths for mixed spinning, flock and special processes, according to a release by the company.

The new machine is said to be achieving speeds of 750 to 1,000 pounds per hour cutting rayon in 1½" lengths. Production in pounds per hour depends upon the weight of the material being cut and the length of the cut.

Any length of cut from 1/32" to 8" can be made on the new machine. The length of cuts is held very accurately. Adjustments for length of cut are made by a handwheel



while the machine is running. No change gears or special attachments are necessary.

The Stokes-Butterworth Universal Rotary Fibre Cutter is made for cutting rayon, silk, cotton, wool, flax, jute and other fibre materials.

The Stokes-Butterworth Fibre Cutter is equipped with ball bearings throughout. Designed so that knives can be easily and accurately adjusted after resharpening.

New "Quicklag" Breaker Combines Thermal and Magnetic Action

New perfection in circuit protection is said to be attained by a new small circuit breaker just announced by the Westinghouse Electric & Mfg. Co. Designed primarily for the protection of lighting, appliance, and motor circuits in homes, buildings, stores and factories, this new "Quicklag" circuit breaker introduces a new principle to circuit protection. Its name, though paradoxical, is apt, for the new breaker is said to successfully combine for the first time in a single unit a co-operative magnetic and a thermal trip—something which no breaker has ever done before. It is available in ratings of 15 to 35 amperes, single pole only, 250 volts A-C and 125 volts D-C.

Further information may be obtained from Dept. 7-N-20, Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.

Link-Belt Announces "Friction Fighter" Bearings

Link-Belt Co., 307 N. Michigan Ave., Chicago, Ill., has announced a program of re-classifying its line of bearings under five classifications with names comparable to the various types of prize fighters.

The five different types are: Series 100 Ball Bearings, and Series 400, 500, 600 and 7200 self-aligning Roller Bearings.

The new classifications decided upon are: Flyweight for the Series 100; Welterweight, Series 400; Middle-

weight, Series 500; Heavyweight, Series 600; and Alternate Heavyweight, Series 7200.

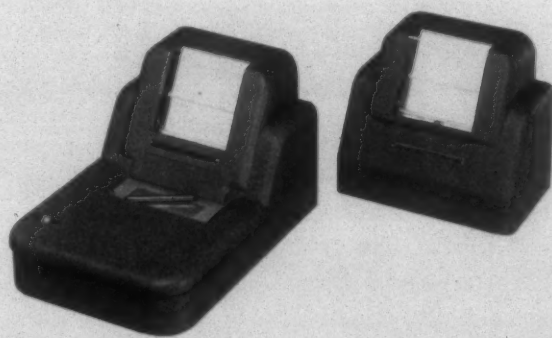
The whole line of these bearings will be known as Link-Belt "Friction Fighter" bearings, since the term Friction Fighter so aptly describes a characteristic of the anti-friction bearing.

To obtain more detailed information on Link-Belt's Friction Fighter bearing units—descriptive matter, illustrations, dimensions, list prices, weights, engineering data—readers interested in the use of such bearings should send for a copy of a new 88-page Data Book No. 1775, giving all this information and classifying the five types of bearings as hereinbefore indicated. The book is free for the asking, and the request may be addressed to the nearest office of the company.

New TelAutograph Telescriber

A new TelAutograph telescriber for instantaneously transmitting written messages over wires has just been announced by TelAutograph Corp. This new instrument is capable of transmitting writing, sketches or figures in facsimile to a number of stations simultaneously or to any one or more stations selectively—within one building or between buildings miles apart.

Styled by a leading industrial designer, this modern telescriber is streamlined and extremely compact. (Dimensions: 10 5/8" high, 12 1/2" wide, 18 3/4" deep.) This new



machine operates on alternating current and can be plugged into convenient power outlets. All models have a black "crackle" finish.

Two new features of this instrument increase its speed of operation: The complete writing field is automatically cleared of each message by one touch of a starter switch, and an electric paper take-up replaces the manual winder previously used.

Bulletin On Polyvinyl Acetates

Facts concerning polyvinyl acetates, the thermoplastic resins produced by the DuPont Co., are contained in a technical bulletin just issued by the R. & H. Chemicals Department of that company. Information concerning different grades and specific applications is given. The bulletin also contains a discussion of the uses of polyvinyl acetates in various industries. Copies may be had on application to the R. & H. Chemicals Department of E. I. du Pont de Nemours & Co., Wilmington, Del.

(Continued on Page 33)

Personal News

R. W. Hollis is now superintendent of the Alabama Mills, Inc., plant at Winfield, Ala.

S. Y. Austin has been elected a member of the board of directors of Avondale Mills of Alabama.

J. E. Warren has been elected an assistant vice-president of Avondale Mills of Alabama.

A. D. McMillan has been elected assistant secretary of Avondale Mills of Alabama.

Robert Riddle has resigned as assistant superintendent of the Eastman (Ga.) Cotton Mills.

R. D. McDermid, formerly of Fitzgerald, Ga., is now overseer of carding at the Tifton (Ga.) Cotton Mills.

Walter A. Jones, formerly of Siluria, Ala., is now grinding cards at the Anniston Mfg. Co., Anniston, Ala.

George W. Ray has resigned as overseer of spinning at the Victor-Monaghan Mills, Greenville, S. C.

S. T. Daniels, formerly with Bemis Bros. Bag Co., Bemiston, Ala., is now overseer of the cloth room at the Anniston Mfg. Co., Anniston, Ala.

J. H. Canady, overseer of carding at the Avondale Mills, Pell City, Ala., has been promoted to overseer of carding and spinning of the same plant.

E. A. Safie, formerly of Safie Hnos & Co., San Salvador, El Salvador, Central America, is now superintendent of the Bradford Mills, Prattville, Ala.

Carl Johnston, of the Dunear Mills, Greenville, S. C., has accepted the position of overseer of spinning at the Victor-Monaghan Co., Greenville, S. C.

William L. Pierce, for the past 20 years connected in an executive capacity with the Bellman Brook Bleachery, of Fairview, N. J., and the Newburgh Bleachery, Newburgh, N. Y., has joined the textile division of National Starch Products, Inc.

Ollie Hall, overseer of weaving at the Alabama Mills, Inc., Winfield, Ala., has returned to his job following recovery from a serious operation.

Robert Frick has recently become associated with J. P. Stevens & Co., having resigned from Stehli & Co., with which he had been for 21 years.

Wm. D. Anderson, president of the Bibb Mfg. Co., has been invited to speak at the Nov. 4th meeting of the Atlanta (Ga.) Textile Club.

John C. Fay, general manager of the Pendleton Mfg. Co., LaFrance, S. C., recently conducted a training course for Boy Scout leaders.

H. E. Kiefer, Jr., of the Ware Shoals Mfg. Co., Ware Shoals, S. C., has been elected president of the Greenwood, S. C., Kiwanis Club.

Art Fentress, B. F. Goodrich Co.'s salesman for Koro-seal in Georgia, Alabama and Tennessee, was married Saturday, October 26th, in Atlanta, Ga., to Miss Ora Salee, of Kentucky.

W. F. Smith, formerly superintendent of the Mexia (Tex.) Textile Mills, is now overseer of winding and twisting at the twine mill in Waco, Tex., of the Brazos Valley Cotton Mills.

W. W. Jones has resigned as master mechanic of the Alabama Mills, Inc., plant at Winfield, Ala., to accept a position with the duPont Co., with headquarters at Memphis, Tenn.

Lester Wright, formerly of Alabama Mills, Inc., Aliceville, Ala., has been transferred and promoted to the position of master mechanic at the Winfield, Ala., plant of the same company.

George M. Allen, assistant general plant manager, and H. O. Davidson, chief engineer, of American Viscose Corp., have been elected to the board of directors of that corporation.

James Oates has resigned as assistant superintendent of the Brookside Mills, Knoxville, Tenn., to become general superintendent of the Virginia Mills, Inc., Swepsonville, N. C.

A. O. True, chemical engineer of the Proximity Mfg. Co., Greensboro, N. C., was installed as president of the North Carolina Division of the American Waterworks Association, October 28th.

Cleveland Adams, superintendent of the Cowikee Mills, Inc., Eufaula, Ala., spoke recently to Phi Psi, national textile fraternity, at Alabama Polytechnic Institute, Auburn, Ala. Mr. Adams graduated from Auburn in 1932.

HOUGHTON WOOL TOPS

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SUPER-TAL

PIEDMONT SIZE

EMULSO TALLOW

GUM ELASTIC

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AND COMPANY
INC.
ATLANTA, GEORGIA



COTTON and RHOPLEX are VERSATILE

COTTON is a versatile textile fiber. From the cotton boll, countless fabrics ranging from dainty dress materials to rugged industrial fabrics are woven. Sheer summer fabrics for dresses, luxurious towels for the home, durable canvas for tents are only a few of the varied potential uses of this fiber. Logical enough, the sobriquet, King Cotton.

RHOPLEX RESINS are even more versatile as textile finishing agents. They add strength, hand, and life not only to cotton, but also to rayon, silk, linen, and other fabrics. RHOPLEX RESINS are clear, odorless, and durable; they are free from the difficulties encountered with ordinary resin finishes. In finishing fabrics—it's King RHOPLEX.



RÖHM & HAAS CO., INC.
222 W. Washington Square
PHILADELPHIA, PA.

Dr. Alfred R. Macormac, associate professor of textile chemistry at Auburn Textile School, read a paper entitled, "A Simple Apparatus for Testing Fireproofed Fabrics," at the recent meeting of the American Association of Textile Chemists and Colorists in New York.

Roger W. Cutler Back in U. S. Aviation Service

Roger W. Cutler, manufacturer of Cutler spinning and twisting tape and bands, and other textile mill supplies, has been accepted for active service by the Aviation Division of the United States Navy, in which branch he served in the last war. His rank is a Lieutenant Commander, U. S. N. R.

Mr. Cutler advises that he will be in constant communication with the Boston and Greenville offices, and the company will continue to function as usual.

N. Judson Miller Joins Quaker Chemical Products Corp.

N. Judson Miller, of Charlotte, is now connected with the Quaker Chemical Products Corp., of Conshohocken, Pa., as technical sales representative. He will contact dyeing and finishing plants in North Carolina, South Carolina, Georgia and Alabama.

Mr. Miller was formerly associated with the Synthetics Department of the Hercules Powder Co., of Wilmington, Del. He is well known in the Southern territory, having spent many years selling and servicing the dyeing and finishing plants throughout this section.

Most of Mr. Miller's duties will be on the sale and application of Diapene synthetic resins which have been developed by the Quaker Chemical Products Corp. and have been applied to many new phases of textile processing and finishing.

Mr. Miller's headquarters are at 1309½ East Boulevard, Charlotte, N. C.

Nova A. Eisner Named New Fashion Director Of Cotton Institute

Miss Nova A. Eisner, for five years fashion and promotion co-ordinator of the Mutual Buying Syndicate, has been appointed fashion director of the Cotton-Textile Institute. She succeeds Miss Catherine E. Cleveland, who has become chief of sewing projects of the Works Progress Administration.



In announcing her appointment, C. K. Everett, of the Institute, said that Miss Eisner's long experience in retailing and in the fashion markets would contribute greatly to the further development of the Institute's fashion program with respect to cottons. Among other things, she will have charge of fashion shows and will act as liaison between the mills,

on the one hand, and converters, cutters-up and retailers, on the other.

Plans Announced for N. C. Cotton Mfrs. Convention Nov. 7-8

Charlotte, N. C.—Plans for the annual convention of the North Carolina Cotton Manufacturers' Association, to be held, as noted, at the Carolina Hotel in Pinehurst, November 7th and 8th, were announced here by Hunter Marshall, Jr., secretary and treasurer.

Registration will begin at 11 o'clock the morning of November 7th. In the afternoon there will be golf matches and a skeet shoot. J. D. Sandridge, of the E. I. duPont de Nemours & Co., Charlotte, will be in charge of golf and Joe E. Moore, of the Calco Chemical Co., Charlotte, will direct the skeet shoot. At 7 o'clock in the evening there will be a dinner session of the board of directors.

At the business meeting, which will be held at 10 o'clock Friday morning, November 8th, there will be reports from the following officers and committee chairmen: A. G. Myers, Gastonia, president; W. H. Entwistle, Rockingham, vice-president; Carl R. Cunningham, Atlanta, Ga., traffic manager; Hunter Marshall, Jr., Charlotte, secretary and treasurer; Herman Cone, of Greensboro, legislative chairman; D. A. Long, Jr., Thomasville, membership chairman; F. J. Haywood, Concord, traffic chairman; R. D. Hall, Belmont, taxation chairman; C. A. Cannon, Kannapolis, cotton chairman; Harvey W. Moore, Concord, finance chairman; Stuart W. Cramer, Jr., Cramerton, welfare and publicity chairman; and Marion W. Heiss, Greensboro, chairman of the safety contest. New officers will be elected and various business matters will be taken up.

Combed Yarn Group Picks Defense Body

Charlotte, N. C.—Stuart W. Cramer, president of the Southern Combed Yarn Spinners' Association, has announced appointment of a special committee to work on problems of industries participation in the national defense program.

T. H. McKinney, of Mount Holly, is chairman of the committee. Members are A. G. Myers, of Gastonia, Dave Hall, of Belmont, and Arthur Winget, of Albemarle.

Mr. Cramer said the duty of this committee will be to find out what products containing combed yarn the Government needs and then to increase interest among spinners in bidding on Government contracts. Very few combed yarn spinners are accustomed to Government work, but Mr. Cramer feels that if they become more familiar with this work there will be no difficulty in supplying what is needed.

Textile Fraternity Honors Girl Student

Raleigh, N. C.—June Dickson, of Raleigh, became the first girl to receive a bid for membership in the N. C. State College Chapter of Sigma Tau Sigma, honorary textile fraternity, on October 19th. Membership is limited to students completing three years of work in the Textile School with an average of 80 above for the entire period. Miss Dickson is studying textile weaving and designing. Other students receiving bids were John Boger, of Concord; T. R. Brown, of Cramerton; Richard S. Densberger, of Kenmore, N. Y., and Robert S. Handley, of Llanerch, Pa.

OBITUARY

CHURCHILL HUNGERFORD

Churchill Hungerford, Sr., Chairman of the Board of Hungerford & Terry, Inc., Clayton, N. J., manufacturers of water softener and filtration plants, died at his home October 16th, following a short illness.

A. G. McMILLAN.

A. G. McMillan, president and treasurer of the Talladega Cotton Factory, Talladega, Ala., was killed in an automobile accident October 2nd on Bankhead Highway about two miles from Oxford, Ala.

MRS. A. E. MASSEY

LaFayette, Ga.—Mrs. A. E. Massey, 55, wife of the superintendent of the Exposition Cotton Mills of LaFayette, died recently at their home in LaFayette.

M. C. KIRKSEY

Cherryville, N. C.—M. C. Kirksey, 51, former superintendent of the Rhyne-Houser Mfg. Co., of Cherryville, died October 15th as a result of a heart attack.

W. A. GARDNER

Gastonia, N. C.—W. A. Gardner, 59, an overseer at the Trenton Cotton Mills, and a resident of Gastonia for the past 35 years, died recently at his home.

FRANK W. JOHNSON

Frank W. Johnson, owner and manager of the Johnson Chemical Co., which has its plant and offices in Charlotte, died at his home at 1919 Crescent Avenue, October 19, 1940, of a heart attack. Mr. Johnson was in an automobile accident last August and had never completely recovered, although he directed his business up until his death. A native of Rhode Island, Mr. Johnson had lived in Providence and New York City before coming South 18 years ago to Greensboro, as representative of Arnold, Hoffman & Co., Inc. In 1934 he was made Southern manager of Arnold, Hoffman & Co., Inc., and moved to Charlotte. The most conspicuous work of his career



was the founding of the Johnson Chemical Co. in 1939 and in this short time he built a splendid organization.

The Johnson Chemical Co. will continue to operate under the ownership of Mrs. Johnson and the management of her son, Stephen J. Hawes.

Mr. Hawes, after graduating from the Textile School of North Carolina State College, was associated with Mr. Johnson in Arnold, Hoffman & Co., Inc., until they both resigned in 1939 to organize the Johnson Chemical Co.

Look Under Looms See Where Your Dollars Go!

Oil spots under looms may not seem very important, but they actually show up the real cost of lubrication.

Dripping, leaking oil causes damage long before the oil reaches your floors. Oil that leaks from bearings causes spots on cloth. "Seconds" cut deeply into profits and less than one-third the oil you pay for actually lubricates. Drip-less, waste-less NON-FLUID OIL stops these losses. What's more, it further reduces application cost by outlasting oil 3 to 5 times.

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and bulletin, "Lubrication of
Textile Machinery"*

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Falls L. Thomason, Charlotte, N. C.

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Member of

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Published Semi-Monthly By

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David Clark - - - - - President and Managing Editor
 Junius M. Smith - - - - - Vice-President and Business Manager
 Ellis Royal - - - - - Associate Editor

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Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Item pertaining to new mills, extensions, etc., are solicited.

We Shall Vote

Within a few days, citizens of the United States will exercise a freedom, which is now left to very few peoples, when they go to the polls and select the man who will be their Chief Executive for the next four years.

Every man has a right to vote according to the dictates of his own mind, and if he wishes to cast his vote for Franklin D. Roosevelt there should be no criticism of that act.

We likewise have a right to our own opinion and a right to give reasons why we do not think that Franklin D. Roosevelt should be re-elected, which are as follows:

- (1) When seeking election in 1932 Candidate Franklin D. Roosevelt gave certain definite pledges to the people and yet flagrantly violated those pledges after election.
- (2) He surrounded himself with a group of radicals who were more interested in promoting their own pet ideas than in welfare of the United States.
- (3) He sought to enact legislation contrary to the provisions of the Constitution of the United States and then sought to pack the United States Supreme Court with men who were willing to confirm his actions.

- (4) He has wasted the money of the people in a multitude of unnecessary ways and increased the public debt to the point that it can never be paid except through inflation. He has made it certain that the children and grandchildren, of persons now living, must always bear a heavy burden of taxes.
- (5) In spite of his 1932 pledges, for Government economy and for a reduction in the number of Federal employees, he has greatly increased the number of such employees, adding more than 100,000 in Washington alone.
- (6) With a fine secret service and with facilities which kept him, more than any other man, aware of the preparations of Germany for war and of the inadequate preparations of England and France, he did practically nothing about preparing this country to meet the situation and continued to spend millions upon WPA projects when the same money could have been spent upon armament and furnished just as much employment. He knew what was going on in Europe but withheld the defense program for this election year.
- (7) We are opposed to a third term for any President. He who seeks a third term will also seek a fourth and a lengthy tenure of office will ultimately lead to a dictatorship.
- (8) Every tax has to be added to the cost of the articles sold, and as the working people make their purchases of food and clothing, they are paying and they and their children and grandchildren will, for many years to come, pay hidden taxes which have been made necessary by the profligate waste of the Roosevelt administration.

If, however, a voter wishes to ignore all of the above and to cast his ballot for Franklin D. Roosevelt, he has that right and we hope that the day will never come when freedom to vote according to the dictates of his own mind shall be denied to any American citizen.

Textile Foundation to Support Practical Research

As was stated some weeks ago Marshall Dilling, of Gastonia, N. C., and David Clark, of the TEXTILE BULLETIN, appeared before the Directors of the Textile Foundation at a meeting in Washington, D. C., and asked them to give finan-

cial support to practical research to be conducted by textile mills.

The following very gratifying letter is the response to that appeal:

THE TEXTILE FOUNDATION
COMMERCE BLDG.
WASHINGTON, D. C.

October 25, 1940.

Mr. David Clark, President,
Clark Publishing Company,
Charlotte, N. C.

Dear Mr. Clark:

You and Mr. Dilling will be glad to know that at the meeting of our Advisory Committee for Scientific Research yesterday they unanimously recommended to the Directors that a sum of \$5,000 be appropriated for the work outlined in your memorandum of September 12th.

Recommendation was also made that the one employed to do this work be identified as a representative of the Textile Foundation but that the actual supervision be placed in the hands of the Southern Textile Association.

It was felt that if the sum mentioned was inadequate to cover all of the expenses of salary and traveling the work might receive greater co-operation and support if the Association made up the difference.

You understand that present development is merely in the form of a recommendation to the Directors and before anything is final, it will have to be decided by the Board in the next meeting, the time of which has not yet been discussed.

With all good wishes, I am,

Sincerely yours,

EDWARD T. PICKARD, Secretary.

Under this plan a man will be employed for the supervision of practical tests.

Whenever a man, in a mill, expresses a willingness to make a test, the supervisor will visit the mill and lay out the procedure to be followed. From time to time he will check the progress and when the test is completed, will tabulate the results. He will arrange for similar tests to be made at other mills, so as to determine whether or not the results are generally applicable.

We hope that this announcement will not be the signal for applications from a multitude of men who "want a job." The fact that a man has had practical experience will not necessarily qualify him for the position of supervisor, as the man selected must be of a scientific turn of mind and must be capable of tabulating and appraising the results.

We know very few men who would be capable of filling the position and could name any number of successful superintendents and overseers who would not be capable of doing this highly specialized job.

If properly handled, this research work can do much for the textile industry, and we shall use our influence against the selection of any man except one whom we feel is fully, and peculiarly, competent to handle all the details attached to the position.

Caesar's Footsteps

From an editorial in the Bethesda (Md.) *Journal* we quote the following:

"In Caesar's 57th year, he aspired to be king in name as well as in fact. As Shakespeare described it: Antony set a crown upon his head. When Caesar put it by, Antony offered it to him again, then he put it by again. But there was a columnist present named Casca who was keen sighted, and Casca reported: 'To my way of thinking he was very loath to lay his fingers off it. And then it was offered the third time and as he refused it again the rabble shouted, and clapped their hands, and threw up their sweaty nightcaps.' And Casca went on to say that he 'durst not laugh out loud.'

"Caesar was born in wealth. His mother was of a distinguished family, and when his father died his mother trained him for a political career. Caesar was a pampered child, reared in the lap of luxury. He was celebrated for his extravagance and political intrigues. When the masses were enfranchised, Caesar played to the crowd and became a popular idol. He joined forces with radical parties, and as soon as he came into full power the Roman constitution ceased to exist. Caesar spent tax money lavishly, providing public entertainment and sponsoring many projects to 'relieve unemployment.'

"Caesar proposed a digest of all laws, founded libraries, drained marshes, built dams, enlarged harbors and dug canals. He made financial proposals for the relief of debtors and in a 'great emergency' he took steps to restore agriculture. He even changed the calendar. As his spoils system spread throughout the republic, he became so popular with the people that the Roman Senate granted him the sole right of disposal of funds from the public treasury—blank checks as it were—and finally gave him the power to declare war and make peace."

The fall of the great Roman Empire began with Caesar and many of the people who placed him in power, lived to suffer during the economic ills which followed.

Better Prices Condemned

During the recent meeting of the Cotton-Textile Institute, Lew Hahn, secretary of the National Retail Dry Goods Association, spoke feelingly of the evils of higher prices.

Has Mr. Hahn ever protested when his association was purchasing cotton goods below cost of production?

Mill News

GASTONIA, N. C.—The Groves Thread Co., Plant No. 2, has installed two new high-speed Foster winders to replace four older models.

KINGS MOUNTAIN, N. C.—The Mauney Mills, Inc., is installing new five-roll drawing frames and lap winders. This new machinery was purchased from the Saco-Lowell Shops.

PORTERDALE, GA.—Bibb Mfg. Co., of Macon, has awarded a contract to the Fiske-Carter Construction Co., of Spartanburg, S. C., for construction of an addition to its plant here.

ROCKINGHAM, N. C.—The Pee Dee Mfg. Co. has been engaged in installing new machinery, including five-roll drawing frames and lap winders purchased for Plants 1 and 2. The Saco-Lowell Shops are supervising the work.

ELKIN, N. C.—One of the largest single military textile contracts made since the defense program went into action was let October 23rd by the War Department to the Chat-ham Mfg. Co. of Elkin, N. C.

The contract calls for delivery of wool blankets valued at \$1,923,750.

SWEPSONVILLE, N. C.—Construction was started October 28th on a \$20,000 expansion program at the Virginia Cotton Mills, Swepsonville, including construction of one new building and an addition to another. This follows expansion which has been in progress almost since the appointment in July of Walter M. Williams, former Burlington Mills executive, as executive vice-president and general manager of the Swepsonville plant.

A contract has been let to H. F. Mitchell, of Burlington, to handle the construction work.

A three-story cotton warehouse will be built. Containing approximately 11,000 feet of floor space, the building will eliminate storage of mill goods in the Oneida building here. Dimensions will be 40x90 feet.

Addition of 3,000 square feet of floor space to the mill's throwing department is also planned.

Previous expansion has included addition of 3,000 feet of floor space to the weaving room and 1,500 feet to the spinning room at a cost of about \$5,000.

THOMASVILLE, N. C.—The Maurice Mills has work going forward fast on the construction of two additions to the plant. The work is scheduled to be completed by the latter part of October. One addition will measure 30 by 60 feet, and the other will measure 30 by 70 feet.

ATLANTA, GA.—The Fulton Bag & Cotton Mills have started the construction of an eight-story warehouse at 550 Kennel street, which will represent an expenditure of over \$75,000. The A. K. Adams Co., construction engineers of this city, has the general contract.

DURHAM, N. C.—The No. 6 plant of the Durham Hosiery Mills, which manufactures cotton yarn, will resume operation in the near future following a shutdown of two years, W. F. Carr, vice-president and secretary, has announced.

About 100 employees will be put to work at the outset, he added.

The plant has a capacity of 50,000 pounds of yarn a week.

ATLANTA, GA.—Plans have been completed by Southern Mills, Inc., for construction of a building to serve as plant for manufacturing cover fabrics for automobiles. The building will be 100 by 150 feet in size. Approximately 100 workers will be employed.

The company has announced that construction work is completed on its Senoie, Ga., Branch, where automobile seat covers are to be made.

LAFAYETTE, GA.—Plans are going forward here rapidly getting things in readiness for the resumption of operations at the No. 2 unit of the Exposition Mills of Atlanta, Ga., formerly the Consolidated Textile Corp. The machinery is being thoroughly overhauled and the operating personnel is being obtained. This mill has not operated since the textile strike in 1934.

The dwellings in the village of Linwood are also being overhauled and made ready for the new operatives.

WAYNESBORO, VA.—Crompton-Shenandoah Co., Inc., have recently installed a Detroit Multiple Retort Stoker (six retorts), with one 515 H.P. Union Iron Works Water Tube Boiler to operate at 150 pounds pressure, capacity up to 250 per cent of normal rating with West Virginia or Kentucky coal.

This is the third installation of Detroit Stokers at this mill. Previous ones include a five-retort stoker with 406 H.P. boiler and six-retort stoker with one 511 H.P. boiler.

Robert & Co., Inc., of Atlanta, Ga., were the consulting engineers.

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CHARLOTTE, N. C.

MASTER MECHANICS' SECTION

Machining Nickel Steels

NICKEL steels are tougher than straight carbon steels, and their hardness will vary according to heat-treatment. In turning them in the annealed or normalized state with high-speed steel tools, surface speeds usually run from 35 to 85 ft. per min. for light cuts, the higher speeds being used for fine feeds. With heavy cuts, surface speeds will run from 15 to 30 ft. per min. Single-point tools in general use have side-rake angles of 16-20 deg., back-rake angles from 3 to 5 deg., side cutting edge angles of 10 deg. and end and side relief angles, usually from 3 to 6 deg.

In machining these steels with cemented carbide tools, chip curlers or breakers should be ground on the tools if the cut is continuous, in order to break up the chips or coil them into convenient form for removal at high cutting speeds. Using these cutting tools for fine feeds and light cuts, on annealed or normalized steels, surface speeds as high as 600 ft. per min. can be used under suitable conditions.

Back rake on cemented-carbide tools vary from 6 to 15 deg., while side rake angles vary from 8 to 30 deg. The relief angles all around the cutting edge usually run from 6 to 12 deg. For ordinary work, the end cutting edge angle is usually 15 deg. while the side cutting-edge angle varies from 5 to 20 deg. For interrupted cuts on lathes or planers, it is desirable to use a tool with a negative back rake as great as 8 deg. in combination with 10 deg. or more side rake.

The hardness of the steel has a marked bearing on the cutting speed. For example, steels with a Brinell hardness of 250 may be cut with cemented-carbide tools at surface speeds as high as 300-400 ft. per min., while with steels of 480 Brinell the cutting speeds must be reduced to 20-30 surface ft. per min.

Surface finish on heat-treated nickel steels, machined with cemented-carbide tools at high speeds, is in many cases turned with sufficient precision that subsequent grinding is not necessary. In other cases, grinding allowances have been reduced, saving wheel wear.

Milling of nickel steels, especially in the harder state, is done with cemented-carbide tipped-face mills. Stagger-tooth cutters, with special angles, frequently permit table feeds six to twelve times those possible with high-speed steel mills. The surfaces produced are often accurate and smooth enough to dispense with subsequent grinding.

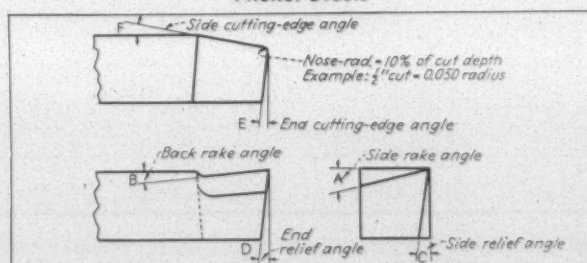
Form tooling of the S. A. E. steels of low-carbon content, annealed dead soft, is not satisfactorily done with cemented-carbide tools. Stellite and high-speed steel tools cut these steels at economical speeds. At high hardnesses,

above 250 Brinell, steel-cutting carbide form tools have worked very well. The reason is that dead soft stock permits telescoping the chips and cuts in a "gummy" manner, while heat-treated high-hardness nickel steels cut smoothly with cemented-carbide tools above 250 ft. per min.

Most of the S. A. E. steels are prepared in the form of bars for use in hand and automatic screw machines. For this work, the cutting speeds are higher than those just mentioned, because lighter cuts are generally used.

For accuracy of dimensions, freedom from rolling mill scale, and improvement in machinability, cold drawing is practiced widely. Usually the hot-rolled bars are not equal in machinability to the cold-drawn product; however, those steels which harden excessively in cold drawing are often machined in the hot-rolled annealed condition. There are available tables which give the machinability rating of steels based on the rating of S. A. E. 1112 as 100 per cent; these speeds are suggested only for set-up purposes and must be modified to meet the requirements of the particular operation and cutting fluid.

High-Speed Single-Point Tools for Machining S. A. E. Nickel Steels



Steel	Angles, Deg.					
	A	B	C	D	E	F
Group 1	20	5	6	3	10	10
Group 2	18	5	6	3	10	10
Group 3	16	3	6	3	10	10

Group 1—S. A. E. 2015, 2115, 2315, 4615 and 4620.

Group 2—S. A. E. 2320, 2330, 2335, 2515, 4340, X4340, 4815, 4820.

Group 3—S. A. E. 2340, 2345, 2350, 3115 to 3450, inclusive, and 4640.

NOTE—Tools made of 18-4-1 high speed steel, hardened to Rockwell 63C. It has been found that a flood of coolant gives longer life between grinds.

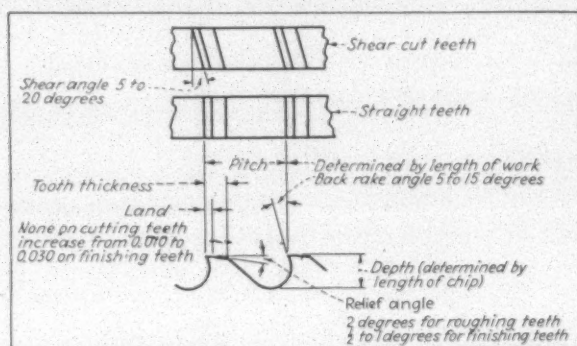
Broaching

Broaches can be designed for the S. A. E. nickel alloy steels providing the latter have been properly forged,

annealed or normalized to produce correct machinability. Research on forged parts designed for broaching has shown that it is necessary to maintain a forging temperature higher than that usually used and one that must remain uniform within 100 F. Machinability for broaching is improved by repeated hammering or compressing the metal during forging.

The dies must be properly designed so that no flash is created that restricts the compressing of the metal in subsequent operations; also, the flash must be longitudinal with the heading tool or there must be a flash pocket to prevent the metal from flowing between the dies so that the compression is not restricted by the flash material.

When these steels are properly forged, annealed, or normalized to produce correct machinability, they may be broached with the same broaches used for other alloy



Nickel steels are difficult to broach, but when they are forged and heat-treated properly, this tooth design is used successfully at reduced broaching speeds.

steels, but with some changes in broaching speeds and feeds, and type of coolant. The cut per tool can remain the same, but by lowering the broaching speeds on the tougher material, finish will be improved, sizes can be maintained and broach life will be increased. The average cut per tooth is determined by the strength of the broach and the shape of the part to be broached.

For internal broaching of spline holes, where broaches have sufficient strength, a cut per tooth of 0.004 to 0.005 in. on the diameter, is recommended. On surface broaching, the cuts vary from 0.0025 to 0.0035 per tooth depending on the length, shape and size of the part.

A coolant is more beneficial during the broaching operation than a lubricant. Cutting oils have a tendency to hold heat and, due to the friction caused by broaching, the broach or broaches become overheated, causing expansion and increased sizes. However, this condition will not occur if a sufficiently large volume of soluble oil is used.

Drilling

In drilling S. A. E. alloy steels, the Brinell hardness can be considered as a measure of their machinability. For hardnesses up to 200, regular high-speed drills, operated at peripheral speeds of 65-90 ft. per min., are satisfactory. Point angles of 118 deg., and lip clearance angles of about 10 deg. are recommended. For steels having Brinell hardnesses around 250, better results are obtained with drills having points of 130-140 deg., and lesser tip clearance angles, as low as 5 deg. in some cases.

For a hardness of 300 Brinell, a peripheral speed of 40 ft. per min. and drills with a point angle of 130 deg. is recommended. For steels with a Brinell hardness around

Cutting Speeds and Feeds for S. A. E. Nickel Alloy Steels Using Different Types of Tools†

Steel	of cut Depth In.	High-Speed Steel				Stellite J-Metal**				Cemented Carbides††	
		1-64	1-32	1-16	3-32	Feeds, in. per Revolution		Surface Speed, ft. per min.		1-16	1-32
						1-64	1-32	1-16	3-32		
Group 1	1-32	86-93	74-80	60-65	52-56	132-142	113-122	98-106	86-93	337-364	307-332
	1-16	79-85	69-74	58-62	49-53	120-130	105-113	91-98	80-86	319-345	283-306
	3/8	70-76	61-66	53-57	44-48	108-117	95-102	81-88	72-78	295-319	258-279
	1/2	58-62	52-56	44-48	37-40	91-98	80-86	68-73	59-64	270-292	228-247
	1/2	41-44	37-40	34-36	27-29	66-72	59-64	50-54	43-46	194-210	185-200
Group 2	1-32	73-82	63-70	51-57	44-49	112-125	96-108	84-94	73-82	288-320	262-292
	1-16	67-75	59-65	49-55	42-47	103-115	89-100	78-87	68-76	273-304	241-269
	3/8	60-67	52-58	45-50	38-42	92-103	81-90	69-77	62-69	252-281	220-246
	1/2	49-55	44-49	38-42	32-35	78-86	68-76	58-64	50-56	231-257	195-217
	1/2	35-39	31-35	28-32	23-26	57-63	50-56	43-48	37-41	166-185	157-175
Group 3	1-32	64-70	55-60	45-49	38-42	97-107	84-92	73-80	64-70	248-274	218-240
	1-16	58-64	51-56	43-47	36-40	89-98	77-85	67-74	59-65	236-260	210-230
	3/8	52-57	45-50	39-43	33-36	80-88	70-77	60-66	54-59	218-240	191-210
	1/2	43-47	38-42	33-36	27-30	67-74	59-65	50-55	44-48	200-220	169-186
	1/2	30-33	27-30	25-27	20-22	49-54	44-48	37-41	32-35	144-158	137-150
Group 4	1-32	53-60	45-51	37-42	32-36	80-91	69-78	60-68	53-60	206-233	188-213
	1-16	48-54	42-48	35-40	30-34	74-83	64-72	56-63	49-55	195-221	172-196
	3/8	43-48	38-42	32-37	27-31	66-75	58-65	50-56	44-50	180-204	157-179
	1/2	35-40	32-36	27-31	23-25	56-63	49-55	42-47	36-41	165-187	140-158
	1/2	25-28	23-25	20-23	17-19	41-46	36-41	31-35	26-30	119-134	112-128

Group 1—High speeds are for S. A. E. 2015, 2115; intermediate speeds for S. A. E. 3115, 3120, 3130*, 4815, 4820; low speeds for S. A. E. 2330*, 2335*, 3135*.

Group 2—High speeds are for S. A. E. 2315, 2320, 3140*, X3140, 4615, 4620; intermediate speeds for X3140*, 3145*, 3215, 3220, 3230*, 3415; low speeds for S. A. E. 3150*, 3312, 4150*, 3430*, X4340*, 4640*.

Group 3—High speeds are for S. A. E. 2340*, 3125, 3130, 3230, 3240*, X4340*, 4640; intermediate speeds are for S. A. E. 2330, 3135; low speeds for 2335, 2345*, 2515, 3140, 3150*.

Group 4—High speeds are for S. A. E. 2340, 2350*, X3140, 3150, 3240*, 3245*, 3250*, 3325, 3335*, 3340*, 3445*, 3450*; low speeds for S. A. E. 3240, 3245, 3250, 3335, 3340, 3435, 3450.

*Annealed steels.

**With Stellite "2400," these speeds can be increased 25-30 per cent.

†Data are for continuous cutting with lubricant.

††For feeds other than those given here, the following speeds are recommended: S. A. E. 2015-2320, 150-350 ft. per min. for 1/4 to 3/8 in. cut and 3-64 in. feed; 60-100 ft. per min. for 3/8 to 1/2 in. cut and 1-16-3-32 in. feeds. S. A. E. 2330-4820 inclusive, 150-300 ft. per min. for 1/4 to 3/8 in. cut and 3-64 in. feed; 40-80 ft. per min. for 3/8 to 1/2 in. cut and 1-16-3-32 in. feeds.

NOTES: For continuous cuts without lubricant, decrease cutting speeds 25 per cent.

For intermittent cuts with lubricant, decrease cutting speeds 15 per cent. For intermittent cuts without lubricant, decrease cuttings speeds 40 per cent.

For light finishing cuts and fine feeds, cutting speeds can be increased from 50 to 100 per cent.

350, drills with a point angle of 130-150 deg., operating at 20 ft. per min., are recommended. When Brinell hardness runs 400 and higher, the drills should be ground with a 150 deg. point angle, and run at a peripheral speed of 15 ft. per min.; they should have a heavy web structure, thinned at the point and designed with a slower helix angle. For steels of 350-400 Brinell hardness, cobalt and other types of proprietary drills are preferred to the regular type of high-speed drills.

Where the depth of the hole is equal to four or five times the diameter of the drill or more, oil-hole drills should be taken into consideration. This applies to drills $\frac{3}{8}$ in. and larger.

In drilling these steels, soluble oil, sulphurized oil, and in some cases a high grade mineral oil are favored as a cutting fluid, as shown in the table on cutting fluids.

Tapping and Threading

Only high-speed or better graded taps are recommended for tapping the S. A. E. nickel alloy steels. Those containing molybdenum are tapped better when the cutting face of the tap has up to a 10-15 deg. rake, while those for tapping nickel-chrome steel give better results with a hook up to 10-15 deg. Recommended peripheral speeds for high-speed taps in the nickel alloy steels are 20-35 ft. per min, with the lower cutting speeds advisable for tapping nickel-chrome and nickel-chrome molybdenum steels. However, these speeds can be increased by at least 5 ft. per min., when taps are made of material tougher than high-speed steels.

When threading S. A. E. nickel alloy steels, the chamfer or lead angle should be at least 20 deg. The feed of a threading tool is fixed by its pitch; thus, one with a pitch of 16 threads per inch must feed 0.0625 in. per revolution. Hence, a long chamfer on chasers is the only way to distribute the cut unless the thread is recut; this should be taken into consideration when the piece to be threaded is first laid out on the drawing board.

These steels, because of their alloying elements, should not be threaded at a surface speed much over half of that of regular screw stock—the higher the carbon, the lower the threading speed. The cutting edge of dies should be relatively smooth and ground with an ample hook of, say, 15 deg. Chasers should, for economic reasons, be reground frequently to remove false edges and to maintain proper clearances and keen edges. Frequent resharpening means less tool costs and better work.

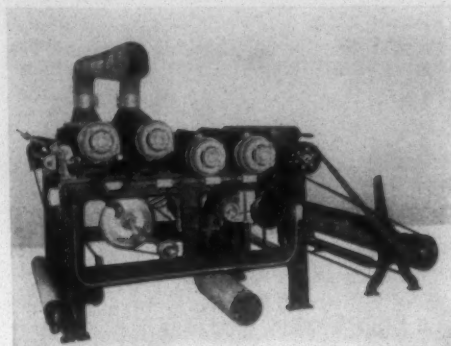
The nature of these steels makes it desirable to have good alignment of the die and work. The die head should be given a proper and sufficient start in order to prevent cramping, tearing and taper threads. The chasers should be relatively hard, and where the stock is heat-treated before threading, the chasers should be ordered to specifications that specify the hardness of the stock.

In general, the following threading speeds have been found satisfactory for these nickel alloy steels: for a pitch of 3-7½ threads per in., 8 ft. per min.; for 8-15 pitch, 10 ft. per min.; for 16-24 pitch, 15 ft. per min.; and for pitches of 20 threads per in. and above, 20 ft. per min. These speeds are subject to change, depending upon the cutting qualities of the material, lubricant used, and the condition of the machine and threading equipment.

Due to the low sulphur content of these steels, a good grade of sulphurized oil should be a part of the cutting lubricant. However, mineral lard oil, containing about 20 per cent lard oil has also been found satisfactory.

(Continued in Dec. 1, 1940, Issue)

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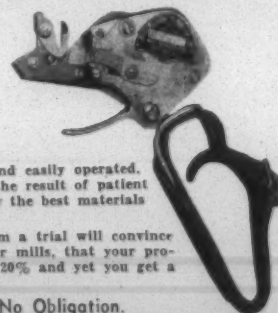
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Master Mechanic Killed in Wreck While Rushing To Dying Brother

Following is a newspaper account of a wreck in which Howard E. Chesser, master mechanic at the Manetta Mills, Monroe, N. C., was killed:

Monroe, N. C., Oct. 19.—Howard E. Chesser, of Monroe, was killed and his wife and baby critically injured today near Jacksonville, Fla., in an auto wreck that climaxed an almost incredible series of misfortunes. Chesser had left here yesterday for Tampa in response to a telegram stating that his brother was dying as the result of a previous accident in which his father was killed.

The baby was thrown clear of the car and was not found until twelve hours after the wreck, when Monroe relatives called Florida authorities to inquire about the baby's whereabouts. Police then returned to the scene of the wreck and found the baby critically injured.

According to information received here, Chesser was killed when his car collided with a truck just outside of Jacksonville about 6 A. M.

A machinist at the Manetta Mill here, Chesser was widely known as a member of Whitaker's String Band. He was formerly an instructor in a CCC camp.

Glen Raven Mill Sued for Polluting Stream

Burlington, N. C.—Allen and Roger Gant, as operators of Glen Raven Cotton Mills, were named defendants October 24th in a \$3,000 damage suit filed in Alamance Superior Court by S. L. Wilson and wife, Violet Mae Wilson, who allege that they have been damaged by the continuous dumping of poisonous and offensive dyestuffs and waste materials from the mill into a creek which crosses their property.

The plaintiffs allege that their property has been made unfit for livestock or poultry producing projects.

Supreme Court Sets Nov. 18 for Hearing Opp Mills Case

Washington, D. C.—The U. S. Supreme Court has tentatively named November 18th as the date on which to hear arguments in the Opp Cotton Mills case, in which the constitutionality of the Fair Labor Standards Act is challenged. This case will be argued along with the F. W. Darby Lumber Co. case, in which is also involved the Fair Labor Standards Act.

Ben F. Cameron, Meridian, Miss., will argue the case for the cotton mills before the court.

Mill Held Liable for Employee's Act Of Violence

Atlanta, Ga.—A corporation may be held liable for an act of violence committed by an employee known to be controlled by a very violent temper and apt to commit an assault, the Georgia Court of Appeals ruled.

The high court reversed the Fulton Superior Court in sustaining a general demurrer filed by the Exposition Cotton Mills in an action for \$15,000 damages brought by Luther Crawford against the mills and S. A. Ferrell, general manager of the mill commissary.

Crawford claimed that he approached the store to make

a purchase at about noon on May 6, 1939, and Mr. Ferrell closed the door in his face. He said he "uttered a harmless exclamation, expressing personal regret and discomfort at being shut out of the store, whereupon Mr. Ferrell cursed him, using violent epithets" (sic) and struck him over the head with the heavy iron bar used to bolt the door.

The petitioner alleged that Mr. Ferrell, who has since died, was accustomed to violent outbursts of temper which his employers knew about.

Governor Clyde R. Hoey Addresses Carolina Co-operative Council

Spray, N. C.—Gov. Clyde R. Hoey was the principal speaker at the twentieth anniversary meeting of the Carolina Co-operative Council held at the Central Y. M. C. A. here. Luther H. Hodges, general manager of the manufacturing division of Marshall Field & Co., introduced Governor Hoey.

The Carolina Co-operative Council is composed of key men from the rank of loom fixers up to the general manager and has a membership of around 500 men.

The meeting was opened by J. O. Thomas, president, after which new officers for the coming year were installed. J. Frank Wilson, of Fieldale, Va., incoming president, took charge of the meeting following the installation. Other officers installed were D. A. Purcell, vice-president and chairman of the progressive committee. W. B. Weaver, secretary, and the various committee chairmen.

Following Governor Hoey's address, he was presented with a Karastan rug, a bedspread, a package of sheets and pillow cases, a blanket, a package of silk dress goods, a package of woolen dress fabric, a towel set, and a box of full fashioned hose, all products of the mills of Marshall Field & Co. A past president's pin was presented to J. O. Thomas.

G. E. Has Biggest Quarter On Record

Schenectady, N. Y.—Orders received by the General Electric Co. during the three months ended September 30th amounted to \$185,156,837, compared with \$79,510,205 for the same period last year, an increase of 133 per cent, President Charles E. Wilson announced. This was the largest amount of new business ever received by the company in any three months' period.

For the first nine months this year, orders received amounted to \$397,810,151, also a record for this period, compared with \$248,581,851 for the corresponding period a year ago, an increase of 60 per cent.

Largely as a result of the National Defense Program, in which the General Electric Co. is fully co-operating, orders for the U. S. Government have accounted for slightly more than one-fourth of the total business obtained so far this year, a much larger proportion than for the same period last year, Mr. Wilson stated. The principal portion of such orders was obtained in the three months' period just ended. Exclusive of business for the Government, the company's orders received from regular commercial sources during the first nine months this year increased 31 per cent over the same period a year ago.

NEW EQUIPMENT*(Continued from Page 21)***General Electric Announces New Line of D-C Motors**

Compactness and improved protection are two outstanding features of a new line of D-C motors recently announced by General Electric. A new design of rolled-steel frame and improvements in end-shield and bearing-bracket construction are said to combine to give the new motors excellent protection from external damage. The use of Formex wire coils and a specially developed Glyptal insulating varnish provide high resistance to impact, abrasion, and the action of foreign materials. The motors can be furnished with sleeve or ball bearings.

Open motors are available in constant-speed ratings from $\frac{1}{2}$ H.P. at 850 R.P.M. up to and including 60 H.P. at 1750 R.P.M.; and, in adjustable-speed ratings from $\frac{1}{2}$ H.P. at 850/3400 R.P.M. up to and including 15 H.P. at 500/1800 R.P.M. Motors in the larger ratings (beginning at 50 H.P., 850 R.P.M.) embody additional design innovations such as a new system of self-ventilation, extra protection of all current-carrying and rotating parts, and large conduit boxes. New V-type double-brush holders give better commutation and permit rotation in either direction and a new type lifting lug facilities handling.

Other features common to the entire line include lower WR^2 ; small diameter, which means low headroom; reversal without changing any parts of the frame, fan, or brush rigging; and Textolite wedges in the armature slots to protect the windings.

The ABC and XYZ of Spinning Roller Covering

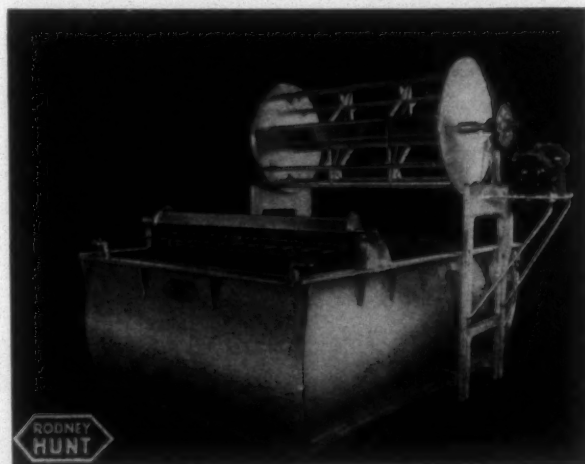
"The ABC and XYZ of Spinning Roller Coverings" is the title of a textbook just issued by Gill Leather Co., manufacturers of Gilleather Roller Coverings, general office and plant at Salem, Mass. It is 7x5" in size and consists of 34 pages. Printed in two colors and profusely illustrated with charts, graphs, cross sections, etc. It deals

with every type of roller covering material.

It is written as a textbook for the industry and a copy can be had free by anyone interested in mill production and writing on the firm's stationery. Address Gill Leather Co., Salem, Mass.

New Style Dye Beck With Curved Sides

This is said to be the first dye beck with fully curved sides ever built. A patented development by the Rodney Hunt Machine Co., of Orange, Mass., it is claimed to give added strength and permanence to the tub at less cost. The sides are pre-formed on hydro-dynamic principles for the correct pressure curve when filled with dye liquor. This eliminates flexing of sides when tub is being filled or emptied. Note the absence of heavy bracing which this



construction makes possible. Rodney Hunt claims that by actual tests, this curved side construction (without expensive bracing) has proven to be many times as strong and rigid as conventional straight sided machines with usual braces. And this new dye beck not only makes a stronger machine but also a less expensive one due to this patented simpler construction.

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Patents Wool-Like Composite Yarns of Rayon Staple

An American patent, No. 2,218,633, covering a method of creating wool yarn effects with rayon staple fiber, has been granted to A. S. Bell and J. R. Wylde of England and assigned to Celanese Corp. of America. Four claims are allowed.

The patent describes a "process for the production of composite yarns resembling wool yarns, which comprises associating one or more yarns containing artificial staple fibers with one or more yarns which, after such association, are capable of being shrunk relative to such yarns containing artificial staple fibers, and thereafter shrinking said shrinkable yarns."

Army Invites Bids On Uniform Cloth

Philadelphia, Pa.—Bids on 20,000,000 yards of cotton khaki uniform cloth conforming to both former and to new specifications will be received at Army Depot here November 5th in one of the largest purchases of such fabric ever made by the depot.

Manufacturers for the first in a long period can bid on cloth made from either combed or carded yarns and either single or ply as outlined in invitations.

As the fabric weighs 8.5 ounces per square yard, more than 10,000,000 pounds of yarns will be needed.

Mill Employees Barbecue

Walhalla, S. C.—About 350 employees of the Kenneth Cotton Mills of Walhalla gathered on the plant grounds recently for the annual barbecue event given by W. K. Stringer, of Anderson, retired president of the textile concern. Officials present included Mr. Stringer, his son, Kenneth, Jr., now president and treasurer, J. R. Clark, superintendent and general manager, and George McGee, assistant treasurer and bookkeeper.

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WANTED—Position as Cloth Room Foreman by a practical cloth room man. References as to ability and character from men in both Carolinas. Address "Cloth Room," care Textile Bulletin.

Cotton Spindle Activity in September

Based on an activity of 80 hours per week, the cotton spindle activity in the United States were operated during September at 96.7 per cent of capacity as compared with 90.4 per cent for August and 92.5 per cent capacity in September, 1939.

Throughout the nation, the Census Bureau stated, a total of 7,867,481,268 active spindle hours were registered during the month. In place were 24,616,762 spindles compared with 24,730,894 in August; active were 22,278,204 of these compared with 22,078,162 in August, 21,919,000 in July, 21,954,616 in June, 22,213,378 in May, 22,288,832 in April, and 22,231,497 in September of 1939.

DuPont Workers in Military Service To Get Two Months' Wages

Old Hickory, Tenn.—Employees of the E. I. duPont de Nemours Co.'s rayon plant here who enter the United States military service in response to call or enlistment will be paid two months full wages or salary from the date of leaving the company's employ.

Also, any employees who are eligible for and have not taken their vacations prior to the time of being inducted into military service will be given the pay they would have received on their vacations.

Other provisions for its employees who enter the service were announced as follows:

Full service credit will be allowed to all employees for the time spent in military service, and up to two months thereafter, but not to exceed a total of 14 months from the date of leaving the company's employ to enter military service in response to call or enlistment to date of re-employment, provided he makes application for re-employment within 40 days and re-enters the company's employ within 60 days after he is relieved of such military service or duty.

Employees leaving the company's service will not participate in any industrial relations plans during the period of military service, except to continue to receive the regular installments of awards previously granted in accordance with the bonus plan.

Enka Gets Patent On Rayon Cord Tire

Washington, D. C.—Letters Patent 2,217,826 has been issued by the U. S. Patent Office to Jan A. Van Laer, Yonkers, N. Y., assignor to American Enka Corp., covering a patent on rayon for reinforcing rubber products.

The patent consists of a composite cord comprising a rayon core consisting of a multiplicity of substantially untwisted filaments held together as a unitary structure by means of a sheath. The process is related to the manufacture of rayon cord tires.

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Cotton Goods Markets

New York.—The last week of October finds all branches of the textile industry operating at close to capacity. Cotton gray goods mills are comfortably sold ahead and the majority of plants have enough business in hand to take them safely into the first quarter of next year. On a number of items, deliveries rather than price have assumed a position of first importance. Prices have risen above the ruinous levels that prevailed during the summer months and are definitely on a profitable basis. However, it will require two to three months of the current rate of activity to make it possible for mills to recoup the losses they suffered in the second quarter.

Mills are in such a heavily sold condition that merchants would welcome a respite. Right now it is hard to arrange satisfactory deliveries on a long list of items with the result that customers have been complaining that mills were neglecting their interests. The fact of the matter is that mills feel that the Government must be served first and that commercial business must occupy a secondary position as long as the Government is faced with the necessity of clothing thousands of young men drafted for military training.

The prices of major constructions of wide goods seem to be again creeping upward as demand remains steady and nearby deliveries grow progressively tighter. Advices from the middle West indicate that certain of the automotive trade buyers of goods wider than 60-inch are acutely short of requirements. Certain of the larger Southern producers advised that February is now their earliest delivery date on wide goods.

Cotton duck prices remain very strong, although there is some unevenness in particular constructions. Variations in the quotations of ounce duck remain particularly wide. Numbered ducks hold to the levels that have obtained for many weeks past, and most sellers seem satisfied with the existing stability.

With finished goods sales expanding, interest in rayon gray goods shows signs of quickening. Faille taffetas and pigment taffetas continue to strengthen and the concessions available up to a short time ago are no longer obtainable. There is more interest in combination yarn fabrics but actual business has been much smaller than it ordinarily is at this time of year. Spun rayons continued fairly active with demand concentrated mainly on the one-way flakes and challis.

J. P. STEVENS & CO., Inc.

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40-46 Leonard St., New York

Cotton Yarn Markets

Philadelphia.—Inquiries for ply carded and combed yarn and for single combed counts have increased recently, but sales for the week ending October 26th did not show a corresponding gain over the previous week. Some quarters say sales are occasionally being lost because of suppliers' inability to promise the deliveries asked for, but elsewhere the buyers are described as unwilling to pay top prices asked for the sort of yarn they are accustomed to using, and also reluctant to switch to another spinning. Their theory seems to be that between buying spurts they may have an opportunity to put down an order for filling-in purposes occasionally without paying full quotations.

There has been no general rise in cotton sale yarn quotations during the last 15 days, but meanwhile more spinners have come fully into line with the prevailing market price ranges. Some individual counts, both in carded and combed divisions, have been sold substantially ahead at prices that should show the spinners a liberal profit. As noted, Government buying of certain fabrics took up the slack in these yarn counts some time ago, causing a condition in which non-military demands, coming in much later, have had to compete among themselves for wanted deliveries.

It is significant that in these yarn groups, inability to sufficiently enlarge their production has contributed toward the Government's turning toward substitute fabrics, which will shift part of the burden from combed to carded yarn spindles, but apparently not enough to make combed deliveries appreciably easier over the next few months.

The rank and file of sale yarn consumers show no tendency toward speculative operations and in this respect the present trading is somewhat different from that of a year ago, when customers with sufficient financial backing bought far ahead, despite spinners' efforts to confine forward contracting within a 90 to 120-day period.

The majority continue to place yarn orders for known requirements, to cover a business of normal size for the season.

If yarns are to be higher pricer later on and deliveries more difficult to get, many buyers seem to figure such a condition will apply to their competitors as well as themselves and thus they now prefer to postpone the building up of fully protective on-hand or on-order stocks of yarn.

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Smallest Power Loom

J. T. Cox, a loom fixer of many years' experience, has perfected what he believes to be the smallest power driven loom in the world. Mr. Cox, who has worked at Judson, Dunean, National Weaving and Puritan Mills, is now employed at Kendall Mills, Pelzer, S. C., and lives at 15 Florida Avenue, Greenville, S. C.

This loom, a picture of which is shown herewith, is powered by a $\frac{1}{8}$ H.P. motor from a peanut roaster. The crank shaft has $\frac{3}{4}$ " throw. The loom is ball bearing throughout, the bearings being taken from discarded automobile generators. It makes 172 picks per minute.



The pick levers on this miniature loom were made from connecting rods out of a T-model Ford engine and the head gears are automobile timing gears.

This perfect little loom is $17\frac{3}{8}$ " between frames and has a unique center pick motion. It carries a shuttle $5\frac{1}{2}$ " x $\frac{3}{4}$ ".

One unique feature claimed by the inventor for his loom is that it will not slam off when starting with the crank shaft up to the top center.

This little loom has created a great deal of interest among the textile men who have seen it.

The Use of Resins and Plastics for the Modification of Textile Fabrics

(By D. H. Powers, Rohm & Haas Co., Philadelphia, Pa.)

In recent years much work has been done in developing synthetic fibers to replace animal or vegetable fibers. At the same time great progress has been made in finding synthetic materials for use in modifying and altering natural, as well as synthetic fibers. Outstanding in this latter type of development are the new synthetic resins for use in fabric finishing. New markets for cotton and rayon fabrics have been opened up through modifying cellulose fibers and fabrics with synthetic resins.

While the use of synthetic resins in textile finishing has been increasing rapidly for the last few years, added impetus has been given to the development with the advent of the war. Because of a shortage of silk and the rising

price of woolens and worsteds, there has been greater need for materials which will impart the properties of silk and wool to cotton and rayon fabrics. Clear, colorless, synthetic resins provide the answer. When applied to cotton and rayon they give the resilience of wool and the durability of silk at a much lower cost.

A great many cotton and rayon fabrics now on the market have achieved popularity because they have been modified with synthetic resins. Numerous fabrics containing from 20 to 25 per cent synthetic resin are now available, and an increasing number are being introduced. It is interesting to note that although the housewife will select a resin treated fabric in preference to an untreated fabric, in most cases she does not even realize that the application of plastics makes the superior fabric possible. These modified materials retain all of the appearance, feel, and even microscopic characteristics of a fabric made exclusively of animal or vegetable fibers. On the other hand, the addition of the clear synthetic resin has given the fabric more resilience, durability and resistance to abrasion.

For some fabrics made from cotton or rayon, the incorporation of 3 to 5 per cent of a synthetic resin will increase the wear resistance from two to four fold. The incorporation of 10 to 15 per cent of a synthetic resin will produce a soft dress fabric or velvet with resilience equivalent to fabrics produced from wool or silk.

In textile finishing resins are applied as water dispersions or water solutions to obtain surface effects or to get penetration to the core of the fiber. Some synthetic resins can be applied in concentrations up to 30 or 35 per cent of the fabric content without any surface coating effects, without loss of fiber absorbency or fabric resilience, and without stiffening or harshening of the fiber. While synthetic finishing resins have been of principal interest and value for textiles used in the garment and upholstery fields, we may reasonably expect that the next decade will see a rapid growth of their use and application in the field of industrial fabrics.

(Abstract of talk given recently at meeting of American Chemical Society)

Ginnings Total Falls

Washington, D. C.—The Census Bureau reported that cotton ginned prior to October 18th totaled 7,028,141 running bales, counting round as half bales and excluding linters, compared with 8,874,291 bales a year ago, and 8,925,828 bales two years ago.

Round bales included totaled 2,693, compared with 130,386 a year ago, and 112,993 two years ago.

Ginnings by States, with comparative figures for a year ago, follow: Alabama, 449,934 bales, compared with 612,316 a year ago; Arizona, 48,735 and 45,650; Arkansas, 690,976 and 1,032,973; California, 212,452 and 126,123; Florida, 16,390 and 8,888; Georgia, 727,700 and 763,402; Illinois, 1,096 and 2,523; Kentucky, 3,584 and 7,822; Louisiana, 343,615 and 677,082; Mississippi, 668,098 and 1,286,661; New Mexico, 30,208 and 36,815; North Carolina, 399,443 and 329,289; Oklahoma, 308,663 and 400,381; South Carolina, 675,422 and 733,818; Tennessee, 147,057 and 256,201; Texas, 2,144,796 and 2,270,239; Virginia, 7,280 and 3,557.

Columbia Alkali Corp. Opens Office In Durham, N. C.

New York.—W. I. Galliher, director of sales of the Columbia Alkali Corp., a division of the Pittsburgh Plate Glass Company, announced the establishment of another chemical sales office in the southeast in charge of J. R. Simpson, of Durham, N. C. After February 1, 1941, the office will be located at Charlotte, N. C.

Mr. Simpson, former director of the Duke University Appointments Office, was graduated from Duke University in 1924 and since that time has been engaged in educational affairs in the North Carolina Public School Administration and Duke University.

During his college career Mr. Simpson was prominent in athletics, having served four years on the varsity football squad. Mr. Simpson was born in Winston-Salem, June 6, 1903.

Cotton Yarn Replaces Flax for Army Use

Macon, Ga.—The Bibb Mfg. Co. has reported it had developed a new cotton yarn to be used for the first time in parachute harness, gunners' lifelines and other aeronautical webbing.

W. D. Anderson, president of the company, said the development freed the U. S. from depending entirely on foreign flax for this vital aviation equipment.

He said the U. S. Army and Navy aeronautical experts had tested and approved the cotton yarn and that orders are already being filled.

Anderson also said the development would increase the use of cotton by "hundreds of thousands of pounds."

Martinsville Gets duPont Nylon Plant

Wilmington, Del.—E. I. duPont de Nemours & Co. on October 9th announced it would build a second plant for the manufacture of nylon yarn.

The new plant, to cost \$11,000,000, will be erected at Martinsville, Va., and will employ about 750 persons when completed. Work on the plant will begin at once.

The plant will increase to \$28,000,000 the duPont Company's investment in nylon manufacture. The firm's first nylon plant, at Seaford, Del., went into operation late last year.

Workmen for the new plant will be recruited from the Martinsville vicinity, a company spokesman said.

Over 90 per cent of nylon production today goes into women's hosiery.

Cotton Nickels Used in Greenville Celebration

Greenville, S. C.—A large number of cotton nickels, one side of which is shown in the accompany illustration, were distributed and used in the Second Annual Cotton Festival, held here October 3rd through the 5th.

The Greenville Pilot Club, women's service group, handled the distribution of the nickels, under the direction of Miss Helene Hansen. The Business and Professional Women's Club assisted in the distribution.



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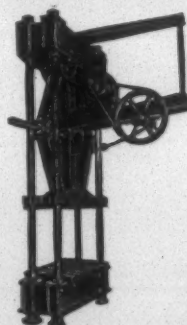
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Erecting, Overhauling and Fixing Looms

(Continued from Page 11)

changing device, or battery, and the other is the warp stop motion. The battery acts as a substitute for time consuming hand work of the weaver. The warp stop motion acts as watchman for the weaver and relieves the weaver of watching out for broken warp threads, and should the stop motion fail to function properly, the weaver is out of luck and bad work or seconds will result.

Boxing the Shuttle and Putting On the Pickers

First, make sure that the protector rods and protector rod fingers have been set properly. Place the shuttle flat on the race plate and against the back box plate. Adjust the front box plate to have $3/16$ to $1/4$ inch clearance between front box plate and the shuttle at the entrance or mouth of the shuttle box. Pull the shuttle all the way back into the shuttle box until the shuttle point or spur touches the picker stick. Adjust the front box plate and the stud in the back binder so as to raise the protector rod dagger $3/4$ of an inch clear of the frog, taking care to keep the shuttle point exactly centering the picker stick. After this is done check the setting of the front box plate at the mouth or entrance again. Put on the picker and line it perfectly with the picker stick. The hole should be reamed in the center of the picker and the shuttle point should center the hole in the picker.

Parallel the pickers on perfectly straight parallel line with the point of the shuttle at each end of the stroke of the picker stick, with the shuttle resting flat on the lay end plate. The above settings apply to the shipper handle end of the loom. The same will be correct for the battery end except—adjust the front box plate to clear the shuttle $1/8$ of an inch at the mouth of the shuttle box. Adjust the dagger stop, with the shuttle pulled all the way back against the picker, to allow about $1/8$ inch clearance between protector rod dagger and dagger stop.

Comments On Boxing the Shuttle and Putting On the Pickers

It is necessary to set the protector rod and protector daggers before boxing the shuttle; otherwise it would be impossible to obtain the correct settings. There are two reasons for setting the front box plate in closer to the shuttle at the entrance of the shuttle box on the battery end of loom. The front box plate is shorter on the battery end than on the opposite end, and the shuttle is somewhat more difficult to hold. Also the bobbin is received on transfer from battery by the shuttle on this end, and it is necessary to hold the shuttle in as near a direct line as possible in order that the bobbin will be correctly transferred and received by the shuttle. Should too much play be allowed at this point, the ingoing bobbin, on transfer, would strike or roll into the shuttle over the front or back wall of the shuttle. The shuttle should track straight with the point of shuttle directly in line over the picker stick guide or slot in lay. The picker stick is forced to follow the picker stick guide on the pick, and if the shuttle is boxed, or lined, straight it will be forced to follow a straight course when thrown out of the box on the pick. If the shuttle is not lined, or boxed, straight, and the picker put on straight, it will be depressed side-

wise, and consequently it will travel in most any direction other than the right one, and this will cause numerous troubles, such as throwing the shuttle out of the loom, bursting shuttle or other parts, and throwing shuttle improperly into the warp, causing unnecessary warp breakage, etc. The picker should be paralleled exactly in line with the point of the shuttle at both ends of the stroke of the picker stick, with the shuttle resting flat on the lay end plate. If the picker is too low, the shuttle will be forced down against the lay end plate, causing undue wear on the bottom of the shuttle, and also is liable to cause the shuttle to be thrown out of the loom on the pick. If the picker is too high it will cause undue wear on top of the shuttle by forcing it against the top of the back box plate on the pick, and, of course, this is also likely to cause the shuttle to be thrown out of the loom. The picker too high or too low will cause improper operation of the loom and create numerous troubles for the weaver and the loom fixer. One should always make sure, when paralleling the picker, to determine if the parallel tongue or parallel shoe is binding in any way, and also make sure that the parallel block is in good condition. If the parallel block or plug is loose or worn onesided, or worn very much in any way, it should be replaced with a new one. This is very important, because a worn parallel plug, or loose plug, or a binding parallel shoe, is an almost invisible trouble and will go undetected sometimes and cause untold damage in loom stoppage, breakage of parts, etc. A piece of leather should be kept at all times between the protector rod dagger and the dagger stop. This will form a cushion and enable one to box the shuttle more easily, and also it is an aid in holding the shuttle in the box, preventing rebounding of the shuttle. The leathers on the front and back binders should be kept in good condition at all times. This is vitally important for several reasons. The shuttle will box more easily and it will prevent under wear or splintering of the shuttle.

New Paraffine Wax Emulsifier

A new type paraffine wax emulsifier, trade-named NOPCO 2251-B, has just been announced by the Technical Service Bureau of National Oil Products Co., Harrison, N. J. It is said to be a heavy, tan colored paste which when mixed with paraffine wax, makes the wax water dispersible or emulsifiable.

Chemists who compounded the material report that, in laboratory tests and large mill runs, NOPCO 2251-B successfully produced a stabilized emulsion spontaneously, without application of rapid agitation or shearing effect, similar to that obtained in a colloid mill.

One of the advantages of the new emulsifier is that no special equipment is necessary in utilizing it, chemists report.

General Dyestuff Releases Direct Brown G

General Dyestuff Corp. announces the release of Direct Brown G, which is a direct dyestuff said to be suitable for the dyeing of cotton, rayon and other vegetable fibers in their various stages of manufacture, producing red brown shades of good fastness to acetic acid, alkali and ironing

Social Security and Unemployment Compensation Discussed At Gaston County Meeting

(Continued from Page 16)

agencies—if they should need to know the number of available and trained workers in the community, what they can do, age groups of workers, etc., we can tell them. If they think of us when they need such information, why then we are meeting a minimum requirement as to your community in which the office is placed. We are trying to do that in Gastonia and we covet your co-operation, your interest and your assistance and as we have said in our letters to you and in talking to you, that is what we want to do and we want to do more than that.

This thing of vocational education Mr. Dickson mentioned and this survey the Altrusa Club and the Chamber of Commerce are doing, don't you see how we are tied right in there. Boys and girls coming into our office and want to know what field they should try to get a job in. Don't you see how we need to be and are, vitally interested in that questionnaire he is sending out. I wish we could be tied in with the school authorities and work in full co-operation with Mr. Lambert and all the other agencies in Gastonia. We thank each and every one of you for the little way that we have had the opportunity of working with you. We have 2,000 or more people in our file up there and if we could give them all work why we would be glad to do it. The unemployment insurance is all right, it is a stop gap, to tide the worker over until he finds a job, but after all we are a job agency and we like to see men get jobs.

Mr. Dickson: I thought probably this group would like to know that something is being done already about youth's training in this State, and it is hoped that the program will get under way soon.

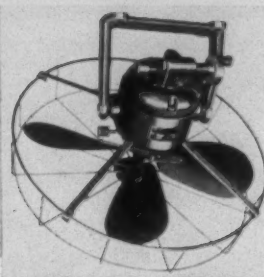
Mr. Brockman: Mr. Dickson refers to apprentice training. A man who is in charge of apprentice training in North Carolina under the State Department of Labor came to our office and Mr. Dickson came down to meet him there. They had a conference and I was glad to sit in and observe. Mr. C. L. Beddingfield is the secretary of the Apprentice Council of North Carolina and he was here in the interest of getting apprentices into the metal trade. There is a plan under consideration whereby machine shops, whether for an individual machine shop or connected with a mill, there may be some plan whereby apprentice training may be given to boys who will be interested in getting into the metal trade and Mr. Beddingfield is hoping to come back soon if a meeting can be arranged and explain to them in a group just how that plan might be worked out. We are vitally interested in this and would like to see men trained for definite kinds of work. The man with the least training is the man that is hardest for us to place; where a fellow has a good trade and skill, it doesn't take him long and us long to get him back into employment.

A Member: Hasn't the wage and hour law more or less eliminated the apprentice training field?

Mr. Brockman: Somewhat, but I think Mr. Beddingfield has a plan worked out about that.

A Member: Why doesn't he turn that plan loose so that all these boys can get work?

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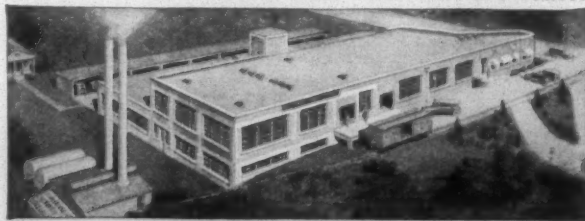
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Mr. Brockman: I have thought the same thing and hope he will have the meeting soon.

Chairman Winget: Is he a Federal man?

Mr. Brockman: No, he is a State man but the wage and hour people work through him. One of our local machine shops had written the Wage and Hour Division and they sent Mr. Beddingfield here. They do work together and try to co-ordinate their work. Mr. Beddingfield is a special apprentice man. The State Legislature has set up a special apprentice council and Mr. Beddingfield is the secretary.

Mr. Dilling: Unless something is done to allow these people to get work, the situation is going to become alarming one of these days and we should see what is coming.

Mr. Brockman: Our boys and girls are going to be directed into more vocational training in the schools.

Mr. Dilling: That should be done because you can't make a stenographer for your office in six months and we can't make an experienced hand in six months.

A Member: Would a mill be allowed an apprentice permit if you have workers on file in your office for that work?

Mr. Brockman: No, if there are workers available for a job a permit to employ apprentices would not be issued.

A Member: Suppose I should need spinners for a fine yarn mill, and you had spinners on file in your office, but all of them were experienced only on coarse work. They would not be qualified to work in my mill, yet your files would show labor available for the jobs. What about a case of that kind?

Mr. Brockman: We try to classify our workers as to the type of work they are capable of doing, and would probably not send a worker not suited to the job. However, that is something that would apply to each specific case, and would have to be taken up and discussed on its individual merit.

One thing that should be understood is that when an employee is drawing unemployment insurance, the money that is being paid him is being charged against his former employer. I had a mill to call me today and they said that a certain lady is drawing unemployment insurance and they would like for her to come back to work. I said, "All right." I went to see her myself, gave her a little card and she said, "Yes, sir, I am glad to go back." Three weeks ago I had a similar case and the lady had a little baby but she said, "I can't leave my baby." I said, "You stated on your claim you were ready to go back to work at any time;" and so she dropped her claim.

A Member: Suppose a picker tender in the mill was registered with you as a picker tender and suppose you had a call for laborers at a comparable wage, would he be eligible?

Mr. Brockman: He would be eligible but we would have to refer him to work that he was accustomed to. But he could refuse it.

A Member: But if he is perfectly capable and the work is no harder than he has been accustomed to, he still wouldn't have to take it?

Mr. Brockman: If he refused it and we felt it a case

that should be referred to a deputy, we have to refer it to him for determination and it would be up to him to determine whether we had referred a man to a suitable job. We had a boy last week who wouldn't take a job and we had to refer it to the deputy.

Mr. Dilling: What progress are you making in weeding out these people who are not qualified?

Mr. Brockman: It is hard to tell. I know what you mean. They are going to draw all their benefits out but when they do they can't draw out any more. If a man didn't work any in 1940, why he certainly can't draw in 1941 against 1940 earnings if he didn't work any.

Mr. Dilling: The thing that is hurting so bad is the people who are getting it and are not entitled to it.

Mr. Brockman: A man comes in and says he is willing and I can't give them a work opportunity, why we just don't know whether they are telling the truth unless we are able to offer him work to find out.

Mr. Lambert: Do you invite employers to tell you about cases where they know the employee isn't deserving of it?

Mr. Brockman: Yes, sir.

Mr. Dilling: You take the fellow who quits his job just for the purpose of living on his compensation; he states at the time that he can live three or four months on his compensation and doesn't want to work.

Mr. Brockman: I don't think he is entitled to it but the law was written by the other fellow.

Mr. Lambert: A man like that wouldn't have any reserve for the next year.

Mr. Brockman: That's right.

A Member: A man could work six months and retire, then he would have a reserve the next year; and then he could do that the next year; he would have a reserve then, wouldn't he? (Laughter.) If an employee gets out of work and then gets sick, so that he is not able to work, is there any means of compensation of any kind that he could draw?

Mr. Brockman: Not from unemployment insurance.

Mr. Lambert: Do you think he should?

A Member: Yes, I do.

Mr. Lambert: Senator Wagner has amended the law and has put a health clause in it. If you men think that way, then as a whole group you could certainly get something done in that respect.

Mr. Brockman: I don't see how you could put a health feature in unemployment insurance.

Mr. Lambert: I don't mean in unemployment insurance. There would have to be an increase in the amount he pays. One point that Mr. Brockman mentioned about the North Carolina fund being for North Carolina workers only, what if one should get transferred to Wisconsin and then get cut off his job, couldn't he get North Carolina compensation from North Carolina?

Mr. Brockman: Yes, he would get it.

There was some further discussion of specific problems which were "off the record," and not for publication, following which the meeting adjourned.

Good Mill Housekeeping Discussed At Northern N. C.-Va. Meeting

(Continued from Page 6)

each end, so that they can be picked up and handled very easily. The edges are beveled, so they will not splinter up so badly.

Yarn Conditioning

Mr. I.: Does anyone use a stationary conditioner—that is, what we call a conditioning box?

Chairman: You mean a conditioning room or shed?

Mr. I.: Yes. The reason I ask that is that we have what we call spinning in the mill with which I am connected, but it happens to be twisting. We have to set our yarn; every pound of yarn we twist we have to set the high twist. We use a large chamber and have the yarn on racks. We have a skid we set those racks on and run a truck under there and run it in this chamber. I am wondering whether, if you do not have a chamber, you could not condition the filling in baskets in the same way we use racks. I wonder how that would work out.

Question: How long does it take to condition the yarn in that chamber?

Mr. I.: Oh, he run a truck in there with practically 500 pounds on it and condition it in an hour. We have charts, etc., on it. We have to get the right humidity. That conditioning system is used in woolen mills and silk mills, but I have never heard of its being used in cotton mills or seen it so used.

Mr. G.: We have a large box, holding from 150 to 200 pounds of filling, and we could not get the conditioner to condition the filling on the inside. So we ran steam pipe around—perforated pipe, and now we shoot steam up in there. That conditions it in from 30 to 35 minutes. The chamber is about six feet square, and we have the pipes all around the wall. That method is very satisfactory. We use it on 40s and 50s yarn.

Mr. I.: I wonder if that could be worked out with a wire basket. We use racks, of course, to put the yarn on, and the yarn is exposed all around. But I wonder if you could not use a basket similar to Mr. Holt's boxes.

Chairman: You have seen people use perforated boxes?

Mr. I.: Oh, yes.

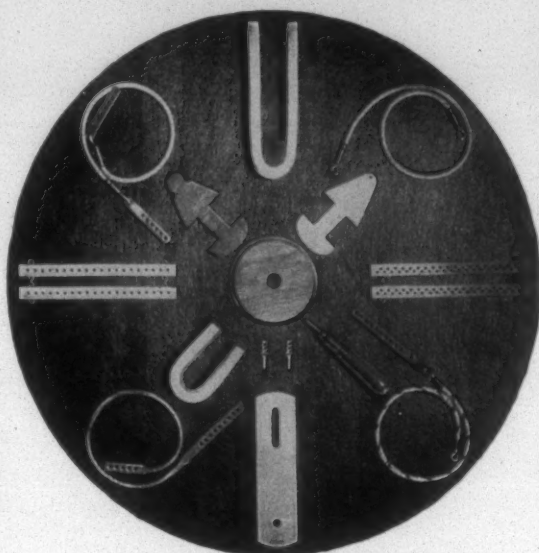
Mr. G.: It might do it with a rack, but I do not believe it would with baskets if the baskets were very large, because I do not believe the steam would penetrate the filling.

Mr. J.: We have collapsible wooden boxes. There is a place in the bottom of the box for the steam to go through. We have a house about 30 feet square, with iron grates in the bottom of it. The trucks are covered over the top with a piece of heavy corduroy cloth, and we put those trucks in there. The house will hold six or seven trucks at one time. Then we turn the steam on and leave it for an hour.

Chairman: The steam comes up from the floor?

Mr. J.: Yes, sir. The building is air-tight. After it has been in there long enough we open a door and let it cool off, then it is ready to use.

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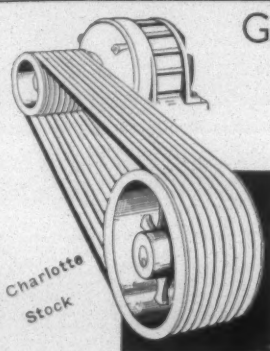


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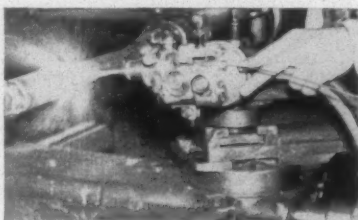
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Chairman: You leave it in there how long?

Mr. J.: An hour, I think.

Chairman: And you use wooden boxes?

Mr. J.: Yes, sir. The boxes are collapsible. They are the boxes it is doffed in.

Mr. G.: Is that filling packed in those boxes or just dropped in?

Mr. J.: Just dropped in by the doffer.

Chairman: In other words, just as it is doffed. Are there any further questions on that?

How To Store Warps

The next part of Question I is in regard to warps. How do you store your warps? How do you place them in order to conserve space and keep the mill orderly? That would be answered by slasher men and possibly weavers.

Mr. G.: I might say we do not have so many warps. All of ours are long—about 78 inches between the heads. We use racks and stand them on end. We use them just high enough so the journal will not hit the floor.

Chairman: Do you have some method for raising those?

Mr. G.: No, sir, we do it by hand.

Chairman: That is rather hard work.

Mr. G.: Yes, sir, it is.

Chairman: Isn't it a safety hazard?

Mr. G.: Yes, but we insist on at least two men handling them and so far have had good results.

Chairman: Have you considered using trucks at the loom beam and, when the warp is doffed, putting it back on that truck until it finally goes to the loom? Have you considered using that?

Mr. G.: No, I have not. Maybe someone else at our plant has. Sometimes our warps are six months old. I do not think we would have the floor space to use the trucks, although I think it is a good idea. Due to crowded conditions we could not store them on trucks in the space we have.

Chairman: Are the warps in the weave room?

Mr. G.: In the slasher room.

Chairman: Do you have humidifiers?

Mr. G.: Yes, sir, but not right over the warp.

Chairman: But it is a humidified room?

Mr. G.: Yes, sir.

Chairman: One thing you want to think about in storing warps is to keep them from contact with other warps, conserving space, and handling them as little as possible. I think the ideal way is to have a truck for every lap. If you can doff on to that truck and the warp stays on there until it goes to the loom, that is the ideal way to do it. Comparing laying warps on the floor and keeping them on trucks, it does not take up any more space to have them on trucks and the warps will be in better condition and there is less possibility of injury in handling them.

Question: Is that an individual truck?

Chairman: It is an individual truck with two wheels

on it. It is very much like a loom fixer's truck. Rubber tires are preferable.

Question: Does the loom fixer use that truck?

Chairman: When he takes an empty beam out he may take that out on a truck. Then he goes and gets the truck with the warp he wants and takes it in there.

Mr. G.: Did you say you can get as many on the truck as you can on the floor, if you stand them up?

Chairman: No, but if you have room it is a most convenient way to store them.

Mr. E.: We have used this system and find it very satisfactory. At one time we kept them stored on the floor, standing them up on end in racks. Whenever we wanted a particular warp it was always back up against the wall and we had to move two warps to get it. We tore out the racks and began using the truck system, which we find very satisfactory. Our loom fixers are crazy about it. To have one man get one of those warps out of a rack or put in in a rack alone is a very hard job.

Mr. K.: Do you use a portable tying machine?

Mr. E.: No, a stationary one.

Mr. K.: Do you tie your warps before you rack them?

Mr. E.: Yes.

Chairman: You said a minute ago, Mr. G, that sometimes the warp stayed in the rack or in this vertical position for six months. Do you find any trouble, after the warp has been in that position that long, with the selvage ends running or with their sticking to the head? Do you keep your heads well painted?

Mr. G.: Our slasher room is located between two spinning departments, and what humidity comes to the center is really about all we get in there. There has not been enough humidity to hurt anything.

Chairman: Do you try to take your warp to the weave room on a truck and give it several hours before it is put on the loom, to absorb some moisture?

Mr. G.: No, sir. We have stationary tying-in machines and we take it there and from there to the loom, and it runs all right. You see, ours is low-pick stuff—heavy yarns for blankets, etc.

Chairman: Humidity is not a very big problem?

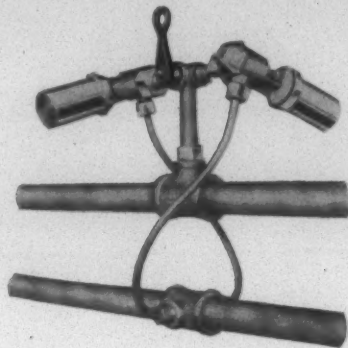
Mr. G.: No, sir.

Question: What do you think is the limit of time to keep a warp?

Chairman: A warp, to my mind, ought not to be stored any longer than necessary. In a styling mill such as Mr. G runs it is absolutely necessary to store warps several months, whereas in a mill such as Mr. B runs they ought not to be stored at all. Should they, Mr. B?

Mr. B.: I do not think so.

Chairman: In all stock handling I think there ought to be a system of cleaning out periodically, of cleaning out everything. For instance, I know of a spinner who at one time had on top of his spinning frame a card saying "Do not lay up roving." He was using two types of roving, and he had the possibility of one layer of roving being put down on the spinning frame and another over it and the bottom layer not being used for weeks and weeks. So he



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had a plan of not laying up any roving at all.

Mr. G.: When I made the statement there that sometimes we have warps laid up for six months I do not mean that all of them or most of them are kept for that length of time. Very few of them stay that long. Sometimes, however, we have some left over that we keep. We find that they do not damage.

Saving With Clean Windows

Chairman: Let's go on now to the second question. "Has anyone present determined how much artificial light is saved by keeping mill windows clean? Do you have a regular schedule for cleaning windows, and what is it? What type of sash and glass do you have in your windows?"

Mr. L., Engineer: I have made a few determinations on that in the last year or two. I find that it is from 10 to 25 per cent, depending upon the type of room. In slasher rooms, etc., where there is a lot of starch and stuff like that, that accumulates on the windows, it runs up very high. In other rooms it might be 10 per cent. It is a good plan to clean them periodically.

Chairman: You say some rooms get dirtier than others. Do you have a schedule worked out to clean some rooms more than others—slasher rooms, for instance?

Mr. L.: No. We clean about twice a year, spring and fall.

Chairman: Thank you very kindly. Most of us want cleanliness; and in the good old days, when we did not have to think about a minimum wage and very little about cost but just had the question of making the goods and delivering the customer the cloth—in other words, during the millenium, we kept the mill clean. Now it comes to the question of how much cleaning helps efficiency and reduces cost and how much is just for looks. We have to ask the question, does it pay in the product we are producing? As to the matter of lighting (and I might say in passing that that is a field in which much work is being done; they are now even passing light around a corner in a tube, surprising as that seems), if you do not pay attention to the question of artificial light it is costing your company money, because you have to pay for that light. I talked to a lighting engineer this week about the question of natural daylight through windows as affected by cleanliness; and he told me, just as this gentleman has said, that he would say that normally a dirty window would obstruct from 2 to 20 per cent of the light coming in there. It is true that for some processes we do not need much light. In weaving we need a great deal; in other processes not so much. But clean windows, in my opinion, pay dividends directly and indirectly; directly in that you do not have to pay so much for artificial light, and indirectly in that having the windows clean gives your employees a sense of working in an orderly place.

I then asked that lighting engineer this question, how much efficiency is lost from a reflector and a globe by not keeping it clean? I imagine that matter is neglected by a great many people here. It may surprise you to find that if you clean the reflector and the globe sometimes there is a difference of as much as 33-1/3 per cent. That means that it takes more bulbs and more reflectors to get the

(Continued on Page 50.)

The Composite Textile Industry

(Continued from Page 4)

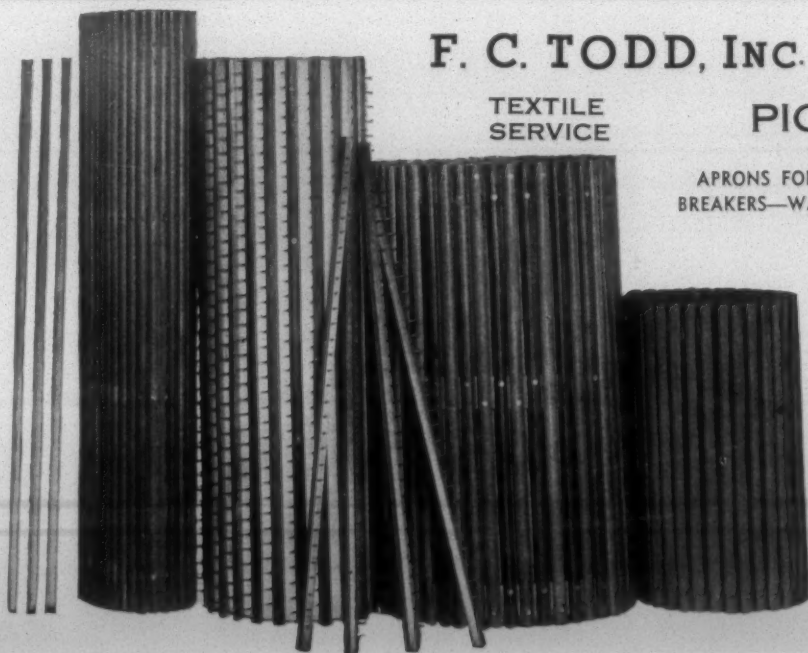
part to meet the requirements of the national defense program. The program has been formulated, financed and launched in the most spectacular manner possible. After two decades of almost total indifference to the needs of our national defense, we began overnight talking in terms of many billions of dollars, of millions of men, of tens of thousands of aircraft, of military and naval equipment and supplies in volume to tax the capacity of American industry for years to come. The publicity and public excitement over this new and gigantic subject of national interest have been accentuated by the political pressures of an election year.

Having in mind this background of events, probably the most timely comment regarding our own industry's relationship to the national defense program would be in the nature of caution. Generally speaking, the industry will meet the major requirements of the government in normal stride, promptly and easily and at low prices. Here and there, tight situations will probably develop but they will be temporary. Where they are found to exist they will be dealt with through the best means and the best will of which the industry is capable. Under no circumstances should they be permitted to cause an exaggerated view of the industry's limitations.

Government requirements over a twelve-months period will not exceed 10 per cent of a normal year's output. After the first year, owing to the slow rate of replacement, certain items in total government demands will be even less. It is well to keep these proportions in mind for the sake of maintaining an intelligent attitude toward long range policies and possibilities. If 90 per cent and probably more of our business is for the purpose of civilian requirements and promises to continue so, obviously our main concern at the present time is with the outlook for private cotton consumption.

The industry is fortunate in having a statistical position which is quite satisfactory. Expanding production has until now been fully justified by a growing demand. Inventories generally are low or wholly reasonable in proportion. Unfilled orders, though not excessive, are substantially above average experience. All of the customary indices of industry condition may be viewed with approval and the trends which are current appear to be in the right direction.

But however encouraging these facts of record, we must not forget that over the greater part of the world the wars already in progress are uncertain as to their outcome and that over the remaining portion of the world the wars that are yet to be are uncertain in their effects. Happily, however, it is possible for the individual enterprise to make the best of the favorable elements of the situation without getting too far out on a limb as regards future operations. For our industry, the defense against this latter contingency is recognizable and effective. It consists mainly in the careful scrutiny of contracts and in the cautious stipulation of the character and terms of delivery. The industry has long since learned that in times of peak activity a large body of blanket contracts, providing for indefinite deliveries over long periods, such as four or six months, may turn out to be not a backlog but a millstone. It is to be hoped that the regard for this important fact which the industry observed so successfully a year ago will continue to be observed. If the uptrend in business should continue, the increasing market requirements and the greater insistence of buyers for long time commitments will make all the more important the attitude of caution regarding the time span of blanket contracts. The rigid observation of this principle in conjunction with the customarily observed prudence in production policies is not only the best defense against unexpected emergency reactions but also the best assurance of a continuation of satisfactory business.



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WOLF, JACQUES & CO., Passaic, N. J. Sou. Reps., C. R. Bruning, 306 S. Chapman St., Greensboro, N. C.; G. W. Searell, Box 102, Lenoir City, Tenn.

Good Mill Housekeeping Discussed At Northern N. C.-Va. Meeting

(Continued from Page 46)

light that you need, on the one hand, or working in a light that is not suitable to the operation, on the other hand. That is something that is easily neglected, and yet the difference may be as much as 33-1/3 per cent, in his opinion. If you get one of the little instruments for measuring light (you can get one that you can hold in your hand), it is nice to play with, and if you take it around and measure your light you will be surprised.

What do you use for cleaning windows, Mr. L.?

Mr. L.: We use a combination squeegee that has a container for water, in which we use a mild alkali.

Chairman: Do you have the janitor or a colored boy do that work?

Mr. L.: No, we have a regular cleaning crew that goes from one mill to another.

Chairman: In other words, you have window cleaners, just as some mills have floor cleaners?

Mr. L.: Yes, sir.

(Continued in next issue)

General Electric Reports 48% Increase in Profits

Schenectady, N. Y.—General Electric Co.'s profit available for dividends in the first nine months this year, after provision for estimated Federal income and excess profits taxes applicable to this period, amounted to \$37,094,776, an increase of 48 per cent over the \$25,022,631 of profit for the corresponding period last year, President Charles E. Wilson announced. These amounts were equivalent to \$1.29 and 87 cents, respectively, a share of common stock.

Administrator Extends Learner Certificates in Apparel, Glove, Textile and Knitted Wear Industries

Extension of special learner certificates in the apparel, glove, textile and knitted wear industries two months beyond their expiration dates has been announced by Col. Philip B. Fleming, Administrator of the Wage and Hour Division, U. S. Department of Labor.

The certificates extended are those marked valid until October 24, 1940. Certificates issued in these industries until the recent revision in learner regulations, were so marked. They are extended until December 24, 1940.

The extension was found to be necessary in order to give the hearings branch of the Division an opportunity to review applications for renewal.

All holders of these certificates which were to expire October 24, 1940, who find it necessary to renew certificates should reapply as soon as possible. Application forms will be mailed certificate holders.

Hercules Reports Nine Months' Earnings

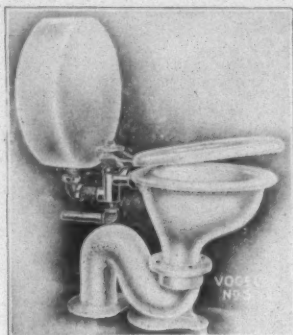
Hercules Powder Co. reports for the first nine months of 1940 net earnings of \$3,744,236, after providing Federal taxes of \$2,901,498, calculated at the increased rates imposed under the second Revenue Act of 1940 approved October 8th.

Figures for the first nine months of 1939 showed net earnings of \$3,646,561 after Federal taxes of \$893,190.

In MILLS, MILL VILLAGES and FACTORIES **VOGEL** NUMBER 5

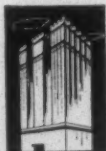
VOGEL No. 5 Closets reduce expenses in installations large and small because of their remarkably low water requirements and almost complete freedom from upkeep costs.

Specifications: enameled flushing rim hopper with S trap, enameled inside only, reinforced hardwood seat, heavy brass flush valve, union ell flush connection. Can be made semi-frost-proof by use of No. 1 valve.



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Double rooms with bath, \$5 to \$7

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OSCAR F. BANSE, Manager

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Keeping American industry at peak efficiency means keeping America safe. Even a seemingly insignificant item like rings can be important. For with our Eadie lubricated styles mills are stepping up production 25%, 50% and even more on twisting cotton, rayon, silk and worsted, as well as on spinning wool. Even with conventional type rings for spinning cotton and staple rayon, there is usually a gain of 10% or more after replacing worn rings with new. Peak production is vital! Let Diamond Finish rings help you do your share 100%.

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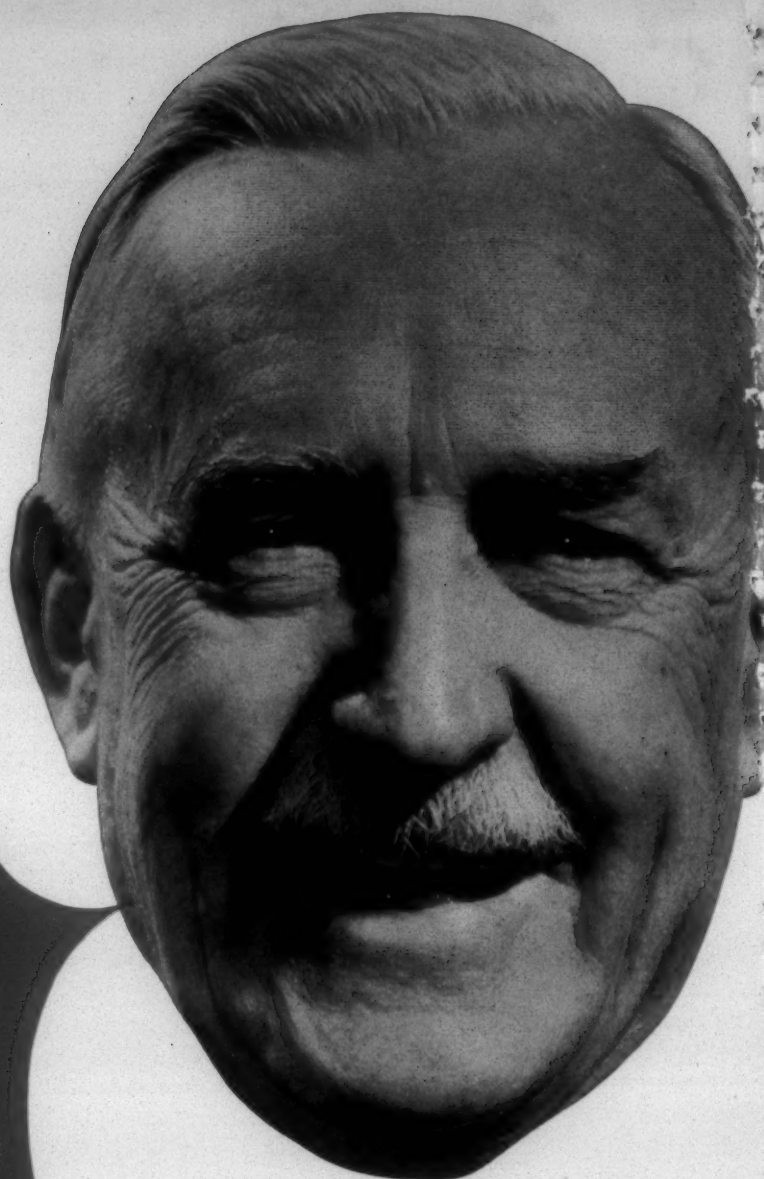
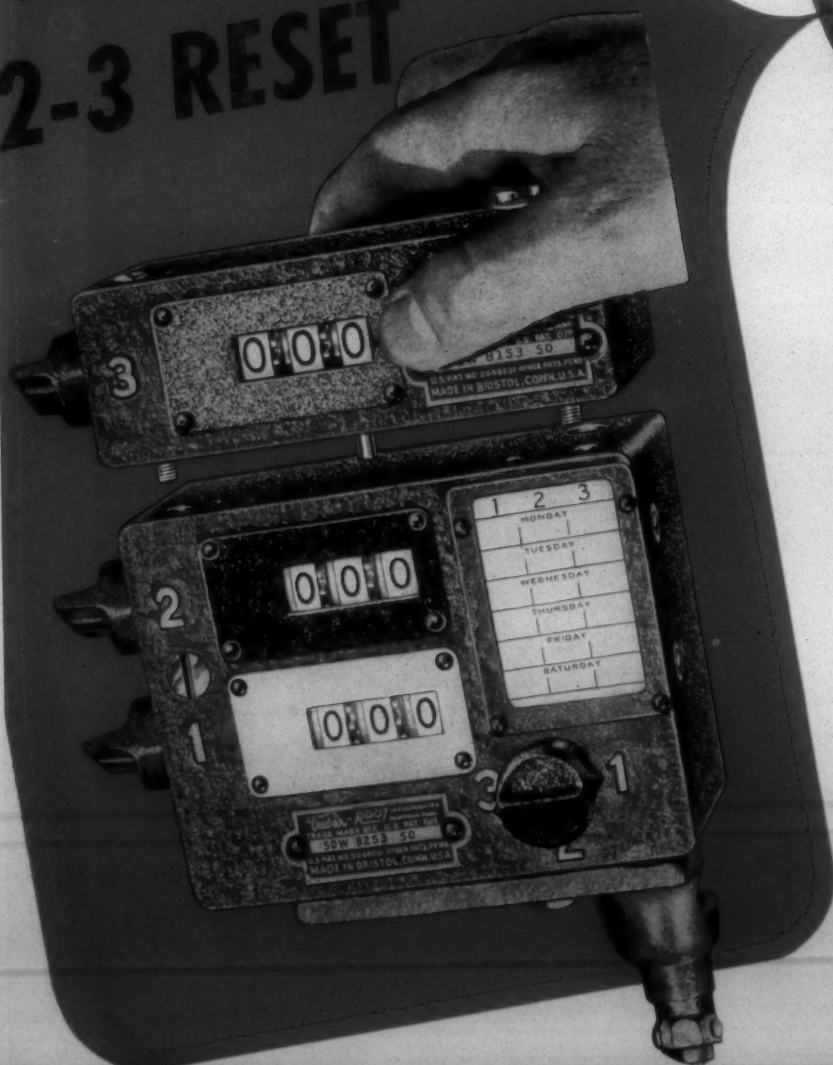
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our problem.
Understand they
are capable and ex-
perienced.*

Jim

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